THE BUILDER

INCORPORATING

"ARCHITECTURE" AND "THE BRITISH ARCHITECT"

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CIVIC DESIGN

MR. THOMAS SHARP, in his recent lecture on Civic Design to the Architectural Association (reported in our issue of November 6), ranged over a wide field and raised a number of interesting points which deserve further consideration and emphasis. There is no doubt that he is justified in taking the view that in the more recent developments in town planning, the architectural aspect has been sadly neglected and that the tendency is to treat the matter as one mainly dependent on a system of regulations and controls to the exclusion of imaginative designs. Were this to take the form of "great vistas, striking axial effects, regularity, lavishness and monumentality," such efforts might be overdone and become pretentious, but it is not necessary to imitate Paris in London and our other large cities, which have a character of their own fitted to British requirements, preferences and traditions.

The view is expressed that in general the street rather than the separate buildings should be the basis of design, but this must involve a new conception of the street, as high and uniform frontages with light wells and back yards are regarded as obsolete, and where large buildings are required these should be planned in cruciform, Y or T blocks. There seems to be a slight conflict between these axioms, as this method would emphasise the building unit but not the street pattern. It is, in fact, admitted that in the central city street architecture in its present form would largely disappear; but elsewhere the picture visualised seems to be rather that of the best type of the county town with streets, either business or residential, not too uniform but with pleasantly grouped masses, and a definite embargo on all efforts in the form of over-stressed design or large-scale advertising to force inharmonious features into the scheme.

While covering the whole area of his subject very fully and laying down a number of useful axioms, undoubtedly stimulating, the lecturer left the details of his picture very open, his intention being, evidently, to encourage a great deal of latitude in the interpretation of his programme. He has apparently some bias against the solutions of architectural problems having a geometrical basis, and seems to go rather too far in this respect. Geometrical treatment has often been misused when applied to a site not suitable for this, as where the levels are very irregular or other natural features are ignored, but where this is not the case, a certain degree of formality gives an appropriate measure of order and dignity. One point of planning we should like to have seen mentioned, namely, the especial suitability of land with a more or less southerly inclination for residential building, which offers a definite gain in the amount of sunlight falling on the houses. This reservation would be both desirable and economical as level ground is convenient for both industrial concerns and open spaces, while these could also take up a proportion of the area having a fall towards the north.

The demands of civic design as regards transport, communications and open spaces were clearly set forth. In both cases the radial and circumferential routes, parkways and open spaces are demanded, and this scheme may be simplified to the mind by describing it as a reticulated one with a network of arterial roads with the addition of parkways and of wider spaces and parks where the natural features and the general organisation suggest them. Such a pattern fits in with the co-ordination of the city as a whole with the more closely-knit local groups (community units) so strongly advocated, as giving that sense of compactness, enclosure and intimacy conducive to good personal relations. These groups would thus be freed from the noise and disturbance of through traffic, but would be in close relationship to such lines of communication, and could have, if required, supplementary underground services.

The importance to architects of a clear and comprehensive understanding of what is needed to give our people a good social life and of their part in providing the material setting for this, was stressed by the lecturer. The programme of civic development he visualised gave opportunities of various kinds for architectural service, and many types of ability would find full scope for taking advantage of these opportunities to remodel our cities in a manner not only meeting the social needs, but also in embodying these in an orderly and beautiful conception. He looked to the younger men to assimilate the demands and to give them the appropriate setting, but felt that at the present time their elders could do a great deal of preliminary work in clearing the way and defining the best general line of advance.

There are several directions in which the position demands clarifying besides those specifically mentioned; for instance, the general assumption that the central nucleus of a large town is one unit is too often made, whereas it is in itself a complex of several which may be specialised and, to some extent, distributed with advantage. In London, for example, there are clearly defined administrative and financial centres at Westminster and around the Bank, but there are many other business activities in the "city" for which this is now an obsolete position and they have shown a tendency, which will probably now be accelerated, to move further west and form new groupings. There are other centres dominated by the needs of Education, Recreation and the Health services that also demand reconsideration; to a less degree the same considerations apply to other large cities.

This and other factors in city planning require investigation to complete the picture, but as many of these are recognised by those working on this subject, it is to be expected that they will receive full investigation and that in course of time satisfactory solutions will be reached, solutions that it is hoped will secure the support of the public, whose increasing interest in the future of our cities is evident.

NOTES AND NEWS

"Holidays With Pay": Scheme Settled.

A BODY entitled the Holidays With Pay (Building and Civil Engineering) Company, Ltd., has been set up by the National Federation of Building Trades Employers, the Federation of Civil Engineering Contractors, and the National Federation of Building Trades Operatives with the object of providing holidays with pay for all workers in the building and civil engineering industries. At present it applies to both these industries in England and Wales and to the civil engineering industry only in Scotland, where the building employers have been invited to join.

Under the scheme, employers are to pay 1s. 6d. per week, starting on February 1, in respect of each employee. From the fund thus raised each worker will be entitled to a week's holiday with pay between April 1 and October 31. Cards will be issued by the new company, and stamps will be sold to employers, who will stamp the cards on the first working day of the week.

We are informed that full details of the scheme will shortly be communicated to every registered builder, and employers are therefore asked to await notification and not to cause unnecessary work by seeking details at the present moment.

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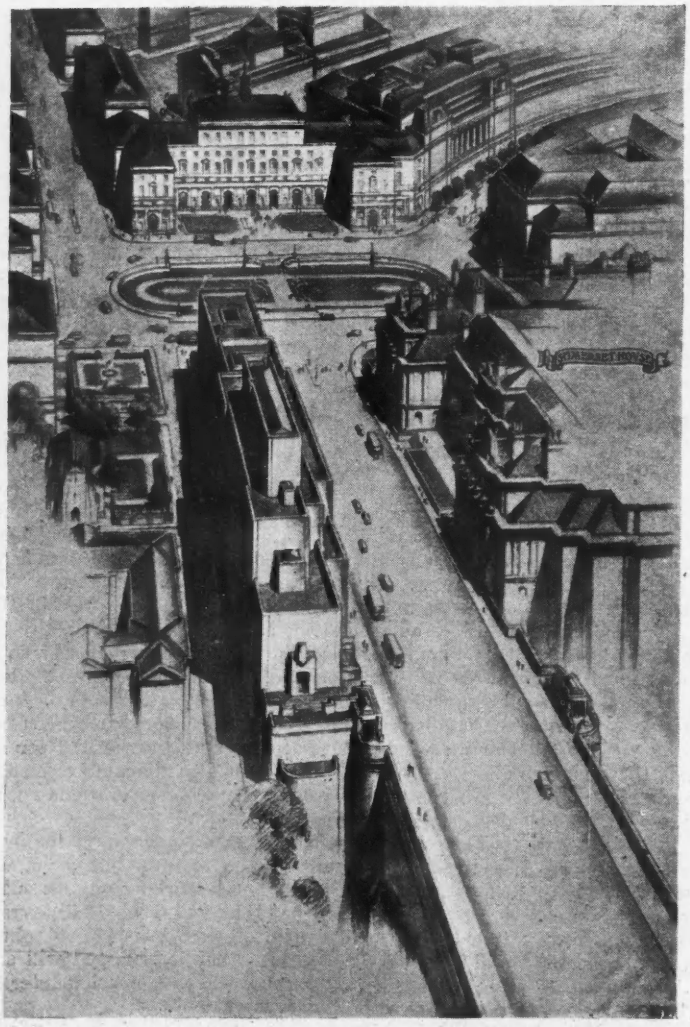
Employment and the Post-War.

MANY will have read with great interest the report of Sir William Beveridge's address to the Fabian Society on the necessity of national planning for the maintenance of employment after the war. This, he said, was the most urgent of all reconstruction problems because the methods of solving it must be agreed and settled during the war. "It is not possible," he said, "to trust to the methods of the last peace—of private enterprise without national planning—to bring about the necessary readjustment of our productive effort in the difficult transition period after the war. National planning is essential, however the plan is executed." In the execution of any national plan for the maintenance of employment it was vital to preserve initiative and enterprise. The practical problem was that of discovering how to combine the proved benefits of private enterprise at private risk in the past with the necessity of national planning in the aftermath of war. That problem, like all others, no doubt had a solution, but it could be found only by thorough unbiased investigation and discussion now. "Private enterprise at private risk is a good ship which has brought us thus far," concluded Sir William. "The weakness of the system is that it does not give any guarantee against mass unemployment. It is to some extent a fair-weather ship. That rapid readjustment of productive effort can be brought about more quickly by resolute national planning than by private enterprise under price mechanism is shown in the case of Russia. The fundamental question is how far national planning, making a national design as to the use of resources to meet needs, must be followed out by national execution of the plan."



From R.A. Plan for London Exhibition.

Design for Replanned Area at North End of Waterloo Bridge.

London "Green Belt" Additions.

IT is highly satisfactory to note that the London County Council are continuing with plans for adding to the "Green Belt" even in war time. Another 330 acres of land in Middlesex are to be taken in at a cost of £39,616. Three tracts of land are included—50 acres in Harefield, near Uxbridge, 13 acres near Stanmore, 146 acres at Yiewsley and West Drayton.

2,750,000 War-Damaged Houses.

THE fact that since the outbreak of war just over 2,750,000 houses in England and Wales had been damaged by bombs was revealed by Mr. Ernest Brown (Minister of Health) in a speech last week. Of these, all but 250,000 had been repaired and were in occupation. "The work of the local authorities in repairing war-damaged houses will rank as one of the finest achievements on the Home Front," said Mr. Brown, who stated that the figures represented about one house damaged in five in the country.

Obituary.

WE regret to record the deaths of Mr. James A. Morris, R.S.A., and Mr. Ernest C. Bewlay, F.R.I.B.A., of Birmingham. Notices of these and others will be found on page 468.

CORRESPONDENCE

[Whilst we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Temporary Architectural Assistants.

To the Editor of *The Builder*.

Sir,—"Probationer's" letter will, I hope, find an echo throughout the length and breadth of the country, in every Ministry and Local Government office, and in all official places wherein the architect finds employment.

I, too, like "Probationer," am employed by the Ministry of Works and Planning, and am, as he one day hopes to be, a State qualified architect and a recently elected Associate R.I.B.A.

In spite of these qualifications and experience, however, my grade is that of a temporary architectural assistant—simply a draughtsman. I know I am not an isolated case, for there are hundreds of architects in a similar position, some with nearly a lifetime of experience behind them.

Even though we are, as a nation, in the throes of a life and death struggle, cannot a little time be found now to give the men, whose vision and foresight have gone a long way in ensuring that the battle of production be not lost, the professional status that is their rightful due, no matter in what capacity each is employed?

I am proud indeed to belong to the profession of architecture, but disappointed and often very ashamed of the attitude taken in the matter of its official position.

TAAUNG.

To the Editor of *The Builder*.

Sir,—As a registered architect, 34 years of age, who has been employed by a local authority for nearly four years in the above-mentioned capacity, I wish to support the comments of "Probationer" contained in his letter published in last week's issue of *The Builder*.

The classification and treatment of very large numbers of chartered and registered architects by Government and local government as well as other bodies are a disgrace and an insult to the architectural profession as a whole.

In my own case I am actively responsible for a technical and clerical staff of fifty persons, yet my status is no different from that of my typist or office boy.

The blame and shame obviously belong to the professional institutions and associations who fail to watch the interests of their members to a sufficient extent.

Many people, I am convinced, still harbour a sneaking impression that the architect is only one generation removed from the long-haired, flowing-tie artist of popular (though erroneous) conception.

M.Inst.R.A.

"Planning" and "Reconstruction": Terminology.

To the Editor of *The Builder*.

Sir,—These words, and some others like them, are to-day so widely and so loosely and ambiguously used, that it seems necessary, in the interests of efficiency (and also of intellectual honesty!), to disentangle the various senses, and after doing so to suggest clear and unambiguous terms for these.

"Planning" and "reconstructing," to begin with, are both verbal nouns, and thus abstract or process nouns, with "plan(s)" and "reconstructed building(s)" (or "area(s)") as concrete equivalents, like "housing" against "houses." Planning, in the architectural application and strictest use, is, therefore, the preparation of plans, *i.e.*, horizontal projections of a building; more widely, that of scale drawings generally, especially for a projected work, passing thus into the sense "designs." By a natural extension it passed beyond individual buildings to groups of them and the spaces between—layouts or site planning, and then to built areas or towns generally, finally to "town and country planning," *i.e.*, the whole country. "Physical" and "territorial" planning cover, one is told by better-informed authorities, rather wider ground. Meanwhile, the word has long had the figurative sense of "organised preparation," and so, as it lastly becomes applied to human welfare generally—almost synonymous with "social reform"—has the sense of all these things worked for in the future, and for obvious reasons gradually equates itself to-day with "post-war" anything.

"Reconstruction," again applied to architecture and literally, means "rebuilding," and as bomb damage has given this subject prominence may primarily refer to individual buildings; the term "reconstitution," which originally (as used by Sir Arthur Evans apropos of Knossos—*R.I.B.A. Journal*, 1928-29, page 91) seems to have meant "rebuilding as far as possible as originally by reusing the original displaced materials," has recently been used without these qualifications, even for partial rebuildings of an *ad hoc* nature (*e.g.*, chemist's shop, in *The Builder*, 1942, May 30, 525). Less than this is "repair" or "reinforcement." From buildings, as with the other word, the sense has passed to "groups of buildings in damaged areas," thus involving rebuilding of many buildings and (though not necessarily) rearrangements of streets and sites and so (beyond what is obviously required by damage) town replanning or improvement. Here, again, the sense has passed from towns to town and country, and to social welfare as a whole, and so the two words, equally figurative and universal, become virtually synonymous, save that the "prospective" notion of "planning" leads to the distinction made by Mr. W. R. Davidge (in "Housing and Planning News-Bulletin," 1942, June-July), "planning *now* for post-war reconstruction."

The ultimate etymology of the stem of the former word, which is connected with "plane" (flat or level) and "plain" (clear, or unadorned), is interesting, but irrelevant.

The suggested new choices of explicit words are as follow: definition is obviated by following the sequence of the foregoing review, and by, it is hoped, their self-evidentness: *Preparation of plans, of scale drawings; layout planning, site planning; town planning, town and country planning*, retaining the existing *physical* and *territorial planning; sociological* (or *social*) *planning* or *reconstruction* or *reform; organised preparation* or *planning ahead* (without distinctive adjective). *Rebuilding*, stating whether *partial* or *entire* where necessary, retaining *reconstitution* in its archæological sense, and *repair* and *reinforcement* as described; *rebuilding of war-damaged areas; town replanning* or *improvement*, arising out of damage rebuilding or otherwise; again, *sociological*, etc., as above. The two unqualified words, which can only bewilder, or even deceive, are thus, as far as possible, avoided. Signs of interest or constructive criticism will be appreciated.

H. V. Molesworth Roberts.

Wallington, Surrey.

Cost-Plus Contracts, etc.

To the Editor of *The Builder*.

Sir,—The recent interesting correspondence in your columns upon this subject prompts me to venture to comment upon a closely allied point that has so far escaped notice. I am referring to the customary method of preparing tenders. It appears to be almost an invariable practice in the building trade and the dependent professions to price quantities in terms of selling price per unit, and accordingly to think in such terms, whilst certain text-books upon the subject still conclude their detailed examples of working-up of prices with an item such as "Add for overhead charges and profit—15 per cent."

Hence the average builder can have very little idea of the gross or net profit that he anticipates earning upon any particular contract that he may obtain, and practically no idea at all of the cost of the labour and material involved in each section of the work.

The keeping of accurate cost and progress records comparable step by step as the contract proceeds with the estimated prices is thus a matter of virtual impossibility to the majority of smaller firms, with consequences under normal conditions upon which it is unnecessary to enlarge.

I suggest that the only sound method of preparing a tender is to price the quantities upon a dissected prime-cost basis, all unit prices being worked up without the addition of any percentages whatsoever, and the extensions being carried into the correct column of a series, the number of which would upon occasions vary, of cash columns headed "Labour," "Materials," "Sub-Contracts," etc. Percentages would then be added to the totals of the respective columns when the pricing was completed, to cover overhead charges, insurances, net profit, etc., in a somewhat similar fashion to the Manchester system recently discussed, except that the percentages would naturally vary according to the type of work and to the policy of the firm or individual preparing the tender.

Comparison between estimated and actual cost would then be perfectly simple, and if any section of a contract were not paying, the fact would be obvious at once, which would enable the necessary steps to be taken before it became too late. Similarly, if for any reason the system of "cost-plus" were extended beyond its proper sphere of the "impossible to price" contract, it would be much easier to ensure fairness to all parties if they had, under some such system as suggested above, become accustomed to thinking in terms of prime cost of labour and materials separately.

The general adoption of such a method would, of course, involve some modification of the customary practice of rendering a fully priced bill of quantities with a tender, the existence of which is probably one of the main reasons for the growth of the present somewhat haphazard and thoroughly unscientific manner of preparing tenders, but this difficulty could easily be overcome by accompanying a lump-sum tender with an undertaking to prepare a fully priced bill if required for incorporation in the contract documents after the tender had been accepted.

The successful tenderer only would then either work up the bill item by item or disclose his prime-cost figures and added percentages as he thought fit.

London, N.1. J. S. D.

Transfer of Men.

TO THE EDITOR OF *The Builder*.

SIR,—With reference to the protest raised by the Federation of Greater London Master Builders at its recent meetings against the action of the Minister of Labour in transferring men, while the protest may arise from a natural vexation at interference with normal business activities, I do not think there is any reasonable justification for the complaints. The Minister is presumably concerned with the vital issue of war strategy as decided by the War Cabinet, and in full agreement with his colleagues in the Cabinet is compelled to act in accordance with the plans laid down for the vigorous prosecution of the war.

The Minister correctly consulted with representative parties before giving effect to the admittedly unusual experiment of putting craftsmen on to labourers' work, and those most concerned are fully alive to the necessity of the step and concurred in it in the interests of the country's war effort.

In view of all the circumstances I feel that the F.G.L.M.B. makes its protest under the impetus of a misconceived desire to preserve sectional interests and cannot therefore expect public endorsement of its views. Vague statements are made of men doing unnecessary work and of thousands of labourers being unemployed in London. Investigation would probably prove that these allegations are nothing more than a picturesque expression of dissatisfaction and should not be taken seriously.

R. COPPOCK,
General Secretary,
National Federation of Building Trades Operatives.
Albury, near Guildford, Surrey.

RESEARCH AND THE BUILDING INDUSTRY

DISCUSSION AT THE INSTITUTION OF CIVIL ENGINEERS.

THE third of a series of meetings of civil engineers and architects was held on Tuesday, November 10, at the Institution of Civil Engineers, S.W.1, the subject discussed being the contribution of science and research to the building industry. SIR JOHN THORNYCROFT (President of the Institution) was in the chair.

SIR EDWARD APPLETON said it was fashionable in some quarters to minimise the amount and quality of research in this country, but our research record was impressive, and had proved a vital factor in the war effort. It was most active in new industries and less so in old traditional ones. An outstanding feature was the participation by the Government. Big industrial organisations were in a position to provide research departments for their own purposes, and for the numerous small concerns there were autonomous research associations supported partly by the State and partly by the industry—the State contribution being related to the amount subscribed by the industry. There were now twenty-one such associations formed on a national basis, the total expenditure being £500,000 a year, of which one-third was contributed by the Government. The greater part of these organisations were concerned with the building industry, and progress had been made both in respect of the production of materials and in the methods of using them in the execution of works. But it could not be claimed that the effort was commensurate with the magnitude of the problem. It was essential not only to conduct research, but also to ensure that its results were incorporated into the front-line activities of building and civil engineering contractors. An important step to this end was the recent appointment of the Codes of Practice Committee of the Ministry of Works and Planning, acting in co-operation with the professional institutions and with the assistance of the Government Departments concerned.

DR. STRADLING instanced plaster as bringing out a number of the difficulties we encountered at the present time. By the traditional process there was considerable shrinkage of each coat of plaster after it had been laid on: consequently we had the method of applying three or more coats, and a period between each coat which in the old days was probably a matter of months. Thus was built up a surface comparatively free from cracks. But now the demand was for a house to be built in the time that used to be allowed between two successive coats of plaster; and this speed had upset the old technique. It was necessary to carry on other trades while the plaster was setting, and the consequent vibration often broke the key of the plaster and caused a failure of the work. Another difficulty arose from the movement of materials from one district to another. This country was rich in limes, but very few of them required the same handling. The building craftsman had originally been local and familiar with the methods of handling his local materials. But when you moved him from one place to another, or moved materials, you had two different techniques clashing, and the change-over from a local technique to a nation-wide hotch-potch brought a grotesque upsetting of craftsmanship. Instead of lime we were now using materials with a calcium sulphate base, and the craftsman who found his material not easy to work sometimes added lime and thereby brought about failure. The manufacturer adjusted his material to a certain use, putting in chemicals to control the hardening time; and by adding lime the craftsman might easily upset the whole process. We could all see a measure of standardisation coming if we were going to fulfil the duties to be laid upon the industry by post-war conditions; but we were going to superimpose standardisation without having in some cases the basis upon which to standardise. It would be a tragedy if we destroyed craftsmanship, but modern conditions did not allow traditional methods. We had to get the necessary adjustment both for craftsman and designer. We must preserve the creative instinct in both if we could. Too long was taken to get results of research used in the industry, and this was the major difficulty in research work. We all realised that the Government must be one of the biggest building organisers after the war. If we could get an arrangement whereby that organisation became the spearhead of the movement to use new materials and methods the whole industry would follow suit; but unless some big unit of that kind did this as a definite principle we should not get in our lifetime the advantages research could bring.

PROFESSOR BERNAL said it was practicable to proceed from research to full practice in a period of months instead of years or decades; but this could only be if it was done in a planned and orderly way. Our present knowledge was partly craft knowledge and partly chemical knowledge. We did not yet understand the processes that were the basis of the setting of substances of the cement class. In that matter we were in the same position as we were with metallurgy fifty years ago. Modern methods that had come in very largely with microscope and X-ray had enabled metallurgy to go farther, and the same thing could be done for all the basic materials of building. That would mean a serious attack on cement, brick, the new plastic materials and the older cellulose materials of the wood product type. All these needed research on an extensive scale. But the amount of change we could get in materials might be small, and much more could be done in methods. These must be investigated as were materials. Government-controlled building after the war would give us a great opportunity to bring our new knowledge of materials in close contact with research into development of methods. We might sink millions of money in things which would prove wasteful unless we did research first.

DR. GLANVILLE said the research worker must keep in the closest possible contact with practice. When people returned from the war a thing to be dealt with was the training of particular experts for the building industry. It was important to research workers to have freedom of contact with workers and manufacturers. They should share in all secrets as far as possible and help with all problems from the beginning.

MR. E. L. BIRD said it was the duty of architects, engineers and scientists to provide the nation with the buildings it wanted, and to-day the emphasis was on purpose. Formerly we had been to a large extent concerned with appearance, but now we produced specialist buildings for specialist jobs, and they had to have a purpose the same as a vehicle. A house was a problem of thermal insulation and day-lighting; a kitchen could be based on motion studies, and in that way we might produce a perfect machine of a house; but after the war people would want grace and humanity once more. Besides teaching people the optimum intensity of light for every operation, providing the requisite foot candles on the working plane, we could use light as a means of emotional appeal, providing culture and stimulus or repose and interest.

MR. ALISTER MACDONALD said a neglected branch of research was the co-operative observation by architect, engineer and scientist of the behaviour of structures already in use.

PRINCIPAL DRURY described the methods of instruction in a modern building school.

Other speakers followed.

COMING EVENTS

Monday, November 30.

ROYAL SOCIETY OF ARTS.—Mr. W. Allen on "Sound Insulation." Adelphi, W.C.2. 1.45 p.m.

Wednesday, December 2.

INSTITUTE OF WELDING.—Address by President (Mr. Ralph Freeman). At Institution of Mechanical Engineers, Storey's Gate, S.W. 6 p.m.

Thursday, December 3.

TOWN AND COUNTRY PLANNING ASSOCIATION.—Mr. Austen Hall on "R. A. Plan for London." Sir Edwin Lutyens, P.R.A., will preside. Y.W.C.A., Great Russell-street, W.C.2. 1.15 p.m.

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS.—Scottish Branch Meeting, at Grosvenor Restaurant, Glasgow. 2 p.m.

VIEW FROM NORTH.

DOLLIS SCHOOL

FOR JUNIORS AND INFANTS

FOR

HENDON EDUCATION COMMITTEE.

MR. J. W. GILMOUR WILSON, F.R.I.B.A., ARCHITECT.

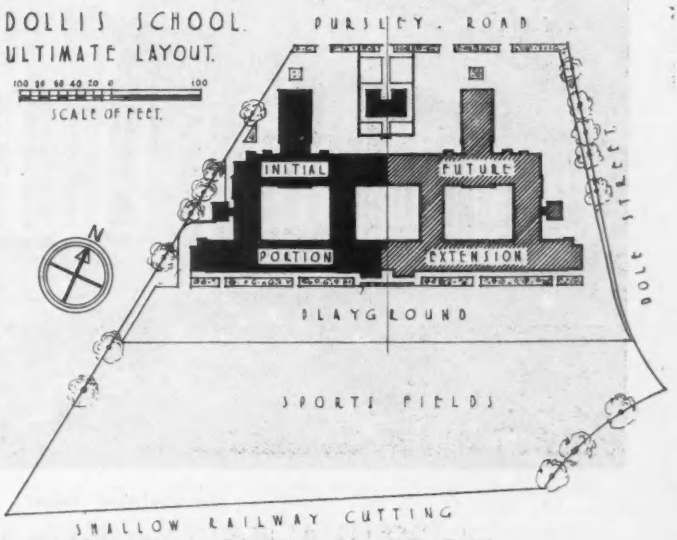
THE DOLLIS JUNIOR AND INFANT SCHOOL, now illustrated, has been built in Pursley-road, Mill Hill, N.W.7, for the Borough of Hendon Education Committee. It is a brick-built building of the bungalow type, with accommodation for 440 junior and infant scholars. The planning of the school has been governed very largely by three considerations:

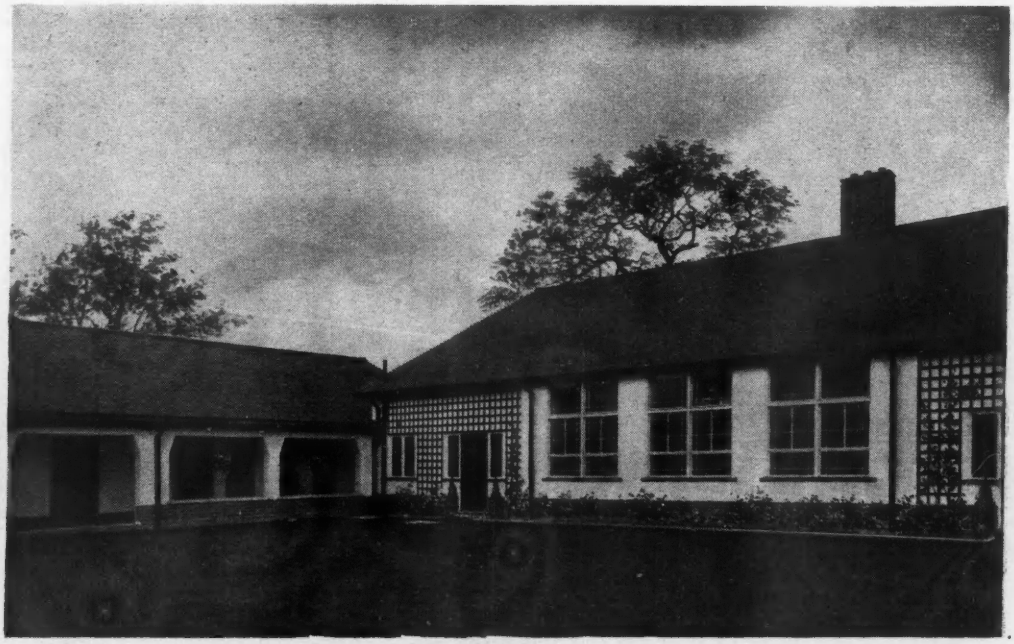
(*a*) The requirement that the school is to be extended at some future date, the extension to be almost a replica of the present department;

(*b*) The need for providing ample unrestricted space for playground and playing fields, open to as much direct sunlight as possible;

(*c*) The favour with which the Hendon Education Committee regard the type of plan adopted.

These conditions postulated that the buildings should be placed towards the northern boundary of the site, and they are so planned that a line drawn from north-west to south-east, passing through the centre of the caretaker's bungalow and touching the eastern flank walls of the school, will form the central axial line of the completed group of buildings. The main entrances are from Pursley-road, no access being given from Dole-street as the majority of the children approach the school from the north and north-west, and Dole-street is a busy street while Pursley-road is a comparatively quiet side road.



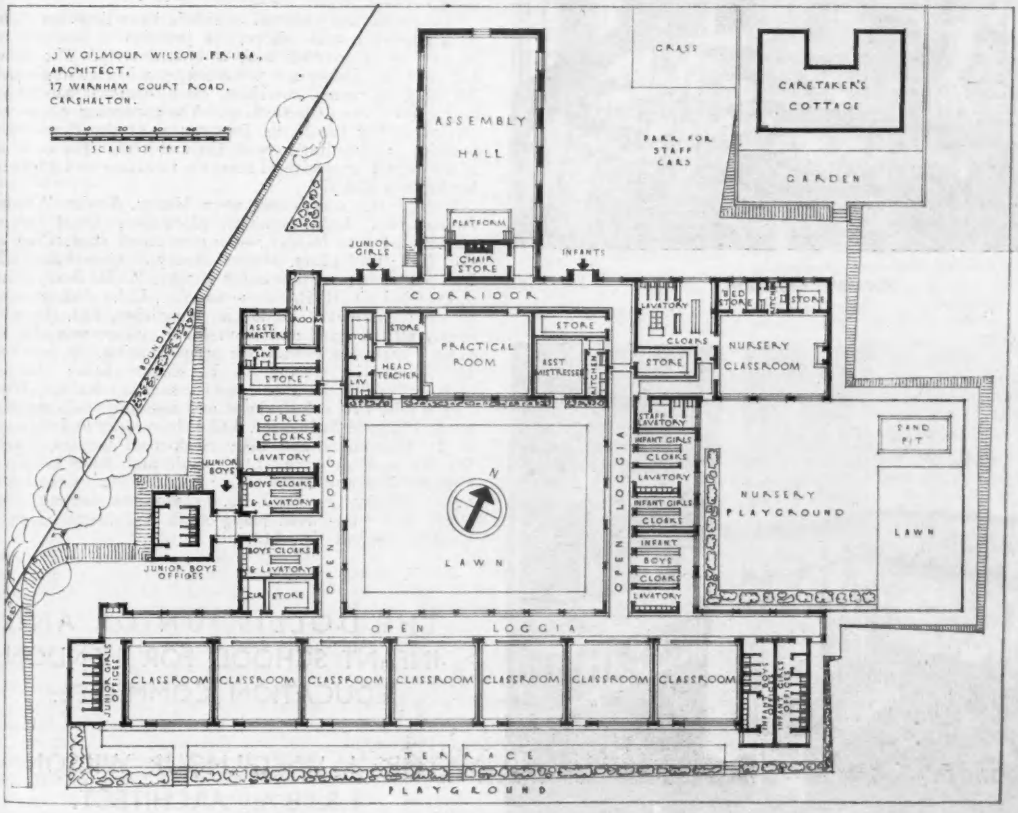


VIEW ACROSS QUADRANGLE, LOOKING NORTH-WEST.

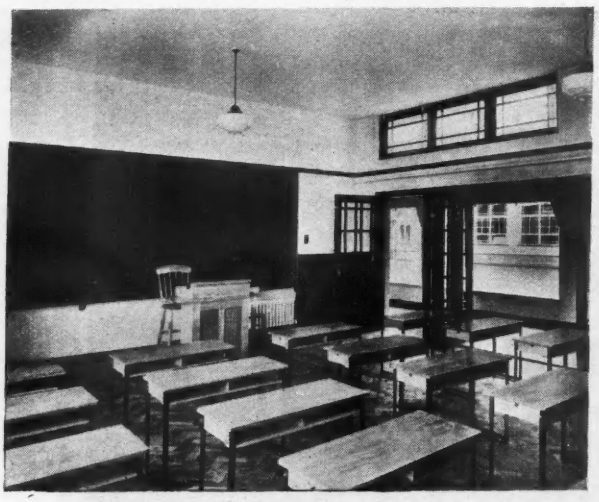
THE SOUTH-EAST FRONT.

THE DOLLIS JUNIOR AND INFANT SCHOOL, HENDON.

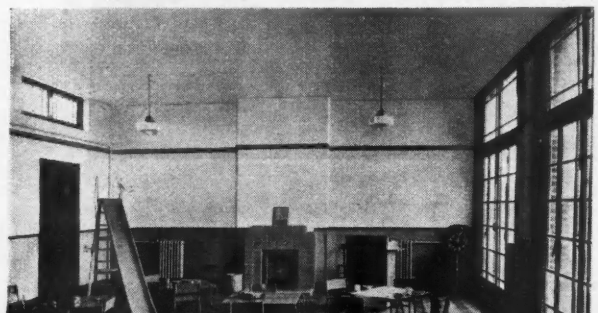
THE ASSEMBLY HALL.



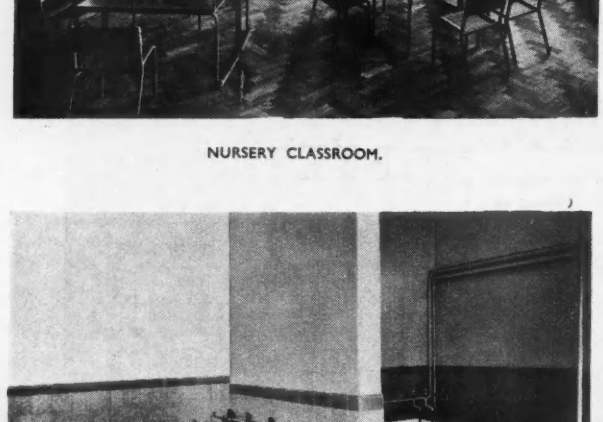
MR. J. W. GILMOUR WILSON, F.R.I.B.A., ARCHITECT.



A CLASSROOM.



NURSERY CLASSROOM.



NURSERY ABLUTION ROOM.

The accommodation is shown on plan. The seven classrooms have built-in cupboards and blackboards, and are fitted with folding screens opening into an open loggia, with large windows and doors on the opposite sides of the rooms giving direct access to the playgrounds. These windows are so designed that whatever the state of the weather, or from whatever quarter the wind is blowing, adequate ventilation is assured. In suitable weather the children may virtually work in the open air. The practical room has built-in bench, cupboards, blackboard and stainless steel sink and has a pleasant outlook into the quadrangle.

The nursery classroom is a self-contained unit, with cot and apparatus stores, kitchenette and combined cloakroom, lavatory and offices opening directly therefrom. This room has large folding windows opening directly into the nursery playground, which consists of a paved area, grass lawn and sand pit and some flower beds. All teaching rooms face south-east. The assembly hall, lighted from both sides, has a simple barrel ceiling and is panelled from floor to ceiling in oak and walnut. Wireless and projector points are fitted in all classrooms and assembly hall, and synchronised fire bells are situated in appropriate positions.

The school is heated throughout by a low-pressure hot-water system. Hot water is run to all lavatory basins and sinks, that to the basins and bath in the nursery ablution room being taken from a central system, while the remainder of the scholars' basins are supplied by independent gas-heated water-storage cylinders. All the children's basins are supplied through anti-scalding mixing valves. Externally, the building is faced with S. and E. Collier's hand-made, multi-coloured facing bricks, while the walls of the quadrangle and loggia are finished in white cement. The pitched roofs are covered with Collier's hand-made sand-faced tiles, and flat roofs are asphalted. Floors of all teaching rooms and staff rooms are of teak blocks laid on the concrete, while the assembly hall is floored with oak strip flooring laid upon battens clipped to the concrete. Corridors, loggia and cloakrooms have "Granwood" floors.

Staff lavatories have tile floors, and lavatories and cloakrooms throughout have tile dadoes. Children's offices have the walls tiled from floor to ceiling, including 2-in. tile slabs between W.C.s.

Classrooms and internal corridors have linoleum dadoes with plastered walls above, the junction of linoleum and plaster being covered with a bronze strip. The salient angles of the dadoes are protected by a bronze angle strip. All teaching rooms, corridors, cloak-rooms, lavatories and loggia have coved tile skirting. The gardening works were carried out by the Parks Department of the Hendon Corporation in consultation with the architect. The total cost of the school, exclusive of movable furniture and gardening works, was £23,577.

The general contractors were Messrs. Taylor Woodrow Construction, Ltd., Southall, Middlesex. Chief sub-contractors were as follows :—Constructional steel, Cook and Co., Ltd.; roof tiling, Messrs. Henry J. Greenham (1929), Ltd.; heating and hot water supply, Z. D. Berry, Ltd.; metal windows, R. E. Pearse and Co., Ltd.; sliding screens between classrooms and loggia, Kingfisher, Ltd. (by whom nearly all the fixed and moveable furniture was also supplied); teak block and oak strip flooring, Hollis Bros., Ltd.; electric lighting, C. E. Keates, Ltd.; linoleum dadoes, the Cellulin Flooring Co.; sanitary fittings, Wilson and Wylie, Ltd.; flush doors and assembly hall panelling, Flexo Plywood Industries, Ltd.; door locks and furniture, J. D. Beardmore and Co.; cloak-room fittings, Parker, Winder and Achurch, Ltd.; wall and floor tiling, the Camden Tile and Mosaic Co.; oak fencing to road frontages, Quenby, Fry and Co.; chain link fencing, Prove Bros., Ltd.; tar-paved playgrounds and tarmacadam, the General Asphalt Co., Ltd.

THE DOLLIS JUNIOR AND INFANT SCHOOL, FOR HENDON EDUCATION COMMITTEE.

MR. J. W. GILMOUR WILSON, F.R.I.B.A., ARCHITECT.

BEAUTY AND UTILITY IN PLANNING

LECTURE BY MR. W. H. ANSELL.

At a lunch-time meeting of the Town and Country Planning Association at 16, Great Russell-street, W.C., on Thursday, November 19, Mr. W. H. Ansell, P.R.I.B.A., gave a lecture on "Beauty and Utility in Planning." Miss Violet Markham, J.P., was in the chair.

Mr. Ansell, in the course of his address, said: Looking back on the year, it is interesting to note the advances which have been made in the campaign for a system of civic planning. There was in February the transference of certain town and country planning powers from the Ministry of Health to the Ministry of Works, which then became the Ministry of Works and Planning. More recently there has been the publication of the Scott and Uthwatt Committees' final reports, and a debate in the House of Lords which revealed some measure of disagreement on the appropriate machinery for planning, but none on the ends to be attained, or the determination that those ends shall be attained. We should, I think, acknowledge, as almost every speaker did in that debate, the value of the services rendered by Lord Reith, when Minister, in convening those Committees and generally putting "Planning" in the forefront of war aims.

I cannot conceive that differences of opinion on machinery will be allowed to prejudice the success of the planning movement, but I have been concerned to notice some suggestions as to the value or lack of value of architectural training to a planner.

It is not as an architect that I propose to speak to-day, but as a member of the general public, an ordinary citizen, a classification for membership of which I have many claims which need not be particularised here. I am pleased and just a little flattered to find that the R.I.B.A. Reconstruction Committee which has been considering these things agrees, in the main, with my own conclusions.

Civic Planning.

Some people fear planning as much as they fear a surgical operation, believing it to be much the same thing. They realise that there are Housing and Town Planning and Restriction of Ribbon Development Acts on the Statute Book, and they see the pleasant town or village, or piece of countryside, after a development operation, never recovering its former health and beauty which the operation, though of course entirely successful, has very successfully destroyed. They despise laws which fail to prevent such disasters, or they go further and quite unfairly lay to their charge the actual performance of most of them. These people must be reassured. Civic planning, as we trust it will appear, does mean a far higher standard of usefulness, together with the preservation of such beauty as may exist and the creation of new beauty of possibly a different kind. But to obtain this it will be necessary to use all and neglect none of the nation's resources in design and planning skill. Circular 1, issued by the Ministry of Works and Planning to Local Authorities, recognises this when it says: "It is necessary in all planning schemes to consider not only health and convenience, but the future appearance of town or village. Architectural advice is therefore essential"; and "The value of architectural advice, taken at an early stage, will amply prove itself when rebuilding takes place; and no planning scheme can be regarded as satisfactory which does not provide opportunities for good building in every area in which building is contemplated." So far so good.

Dr. Robson and the Architect.

Then came the shock in the form of the talk given by Dr. Robson to this very Association, in which he said: "I must not be understood to be criticising or attacking the architects' profession if I say that there is no valid reason why the training or experience of an architect should be regarded as specially relevant to physical planning at the national, regional, or even local level." I was not present on that occasion and do not know how this was received by the audience, but when I read it, I felt, as an ordinary citizen, that I was going to be deprived of something I and all my friends considered indispensable to good planning. The generous tributes to architect town planners which followed made it sufficiently clear that Dr. Robson was not intending, as he said, either attack on or criticism of the profession, but the devastating effect of that one sentence made me wonder what he would have said if he had been criticising or attacking.

Obviously, so sincere a belief must be inquired into, as, if true, something had got to be done about it. I began by thinking out what I and those with whom I live and work, hoped to get from civic planning. To take the three types of planning which have been broadly accepted as desirable, viz., national, regional and local, what does the ordinary citizen expect from each of these?

From national planning he expects such an ordered location of the industry of the country as shall place it where it can best function, having regard to the materials it uses, the markets it seeks, the workers it employs, and the amenities it must respect, and as owing to war conditions the importance of agriculture to a peaceful nation has been forcibly brought home to him, he expects the "maintenance of a prosperous and progressive agriculture" as the background of national happiness. He knows, since he has read the Scott Report, that 80 per cent. of this country is used for agricultural production, and that 80 per cent. of the population lives in urban areas. A national plan should decide to what extent these proportions should still prevail. The transport facilities of water, air, road and rail needed for industry should be included in the big comprehensive national plan, for transport in this age is an integral part of civic life, and should be considered on broad lines at the earliest moment of planning. The ordinary citizen is bitterly ashamed of the slaughter on our roads, particularly of children, and demands that the new planning shall devote itself seriously to dealing with this blot on our national life. The national plan should concern itself with national recreation and playgrounds, as well as work-places, conserving areas as parks, providing better access to mountains, forests and moors, and preserving the coast from the detrimental effect of bad local planning.

Regional planning is looked on as something between the national and the local planning, a co-ordinating influence which would ensure a right liaison between neighbouring Planning Authorities, so that local boundaries should not act to the prejudice of planning schemes, for the ebb and flow of life takes small account of boundary lines of which it knows nothing except the incidence of the source of the Rates notices.

Expectations of the Ordinary Citizen.

The ordinary citizen expects a good deal from an enlightened system of Local Planning, carried out in the main by the larger Local Government Authorities, such as County Boroughs and County Councils, but utilising to the fullest extent the more intimate local knowledge of urban and rural district councils. The O.C., to shorten his name, and give him the commanding position he should have in an ordered democracy, would indeed expect that even a parish council should be consulted before a final decision is made concerning the land falling into its area, if haply it might have something to contribute of specialised local knowledge. Having lived in the course of his life in a provincial town, a central London borough, and old small Surrey town, now almost merged in the London suburbs, and a Kentish village, this O.C. has very decided opinions on the value of good local planning in providing the environment for a healthy community life. Planning must satisfy human needs not only of practical utilities, but of other and perhaps higher things. Slums, so long the despair of social reformers, must be replanned and rebuilt, not as isolated housing estates, but as a part of a communal pattern which, when complete, will include all the buildings necessary for a social entity of a kind proportionate to the size of the unit. There is in the evidence submitted by the R.I.B.A. to the Sub-Committee on Design of Dwellings of the Ministry of Health an admirable summing up of the principles to be observed in community planning. A community should be large enough to support a natural social focus, but not so large as to destroy a sense of unity: it should include, with housing local shopping, commercial and industrial buildings, as well as administrative, educational and recreational buildings, all properly related to an adequate area of open spaces, and planning policy should be directed towards the encouragement of balanced communities, incorporating every kind of dwelling, and all other buildings and amenities necessary to a full social life.

Implications of Planning.

Dr. Robson gives a formidable list of people whose knowledge, training and ability are required—statisticians, economists, transport experts and highway engineers, lawyers, geographers, financial experts (who presumably are not economists), medical officers, botanists, biologists, geologists, electrical, mining and gas engineers, public administration experts, psychologists and students of public relations—and then, very much as an afterthought, he says "architects and surveyors will be needed."

Looking at this list, there is only one classification which to my mind has any qualification for planning, or has been trained in logical planning, and that is the architect's. Take any of the others to an open area and show it to him as a site, say, for any small town or village group of communal buildings, give him paper, pencil and large-size india rubber, and ask him to plan the area. Most of them would say that it was not their job (if they were wise), and would decline the invitation. Some of them would offer to plan roads, but civic design is more than a layout of roads. All the others could no doubt give valuable help by suggestions as to what should be included in a plan, but they could not physically plan the area. Only a trained planner could do this, and having regard to the three-dimensional nature of civic design, only the planner with architectural training

can in the last resort set down the layout which shall not only incorporate what the public demands, but do so in such a way that while utility and convenience are assured, beauty shall be, not added to, but inherent in the solution.

May I quote Dr. Thomas Adams on the Architect and Civic Design. He said: "The preparation and carrying out of plans with the centralised administrative machinery under which these operations are controlled is gradually making town-planning merely an extension of the by-law system for controlling development. Civic Design better defines the art as distinct from the mere act or legalised system of town planning," and he went on to say one of the profoundest truths of planning thought that has ever been uttered. "A proper understanding of civic design conceives the city street as a composition of both building and open area surfaces, and leads to a logical conception of the town and its expanding suburbs as being primarily a group of buildings combined with traffic ways and parks, designed to serve the uses of the buildings rather than as a grouping of highways and streets along whose frontages we permit a more or less incongruous development of building to occur."

I am therefore led to the conclusion that Dr. Robson and I, when talking about planning, mean different things. Lord Samuel, in the debate which I have mentioned, spoke of the same point, saying that there was confusion in the minds of the country at large as to what the term "planning" really meant. At the time of the first Housing and Town Planning Act in 1909, planning meant such questions as the layout of cities, the future development of our towns, and the like. Lord Samuel went on to say that in recent years the term "planning" has been given a much wider sense, and has come even to include how we are to secure a nationally organised society. In this wider sense I very much agree with Dr. Robson. Planning is, in its consideration of the use of the land, the affair of every section of the nation. I would accept his whole list, and even add to it the ordinary citizen who has no claims to exceptional knowledge, training or ability, but on the ground that he and his wife and children are the main bulk, and, in this country, the sound heart of the nation. But when decisions have been made by our great planning Committee, as it might be called, then I maintain that only the planner with architectural training can translate those decisions into three-dimensional fact. I seem to have quoted quite a lot of people in this talk to strengthen my own arguments—this time it is Mr. Edward Carter, who truly said: "The architectural contribution to planning comes in now as it has always come in in the past, in all those aspects of the use of the land which involve the placing of buildings, and this, of course, involves considerations of access to them (transport), their amenities (landscape), their social relationships in a general sense, and so on."

Designing the Environment.

I do not claim for the civic designer that he should decide the policy, but that he should design the environment. The best of the planning committees must necessarily be somewhat confused by reason of the many interests pleading for their own good, and the architectural planner, trained to produce an æsthetic order and reduce apparently conflicting requirements to a coherent whole, as every good architect is, is not only the best man for the work of planning, but the only man who can do it as it should be done.

The principles which control good planning were studied and known before any Town or Country Planning Acts were ever thought of, and they still persist in spite of the Acts, or should I say side by side with them? If there were no Acts, these principles would still govern planning, and the Acts, it was hoped, would cause the principles to have greater influence, but because of their permissive and negative character they have failed to achieve in the past what we hope for in the future. We therefore must clarify in our minds the idea of the difference between civic design and the administration of the legalised system of Town Planning Acts.

Now, inasmuch as town planning is a legalised system, it must be administered and well administered, and as one would not expect to find the best designers among the best administrators, neither is it necessarily true that the best designers make the best administrators. I should say that men of the highest class in both design and administration are comparatively few, requiring, as it would, a combination of qualities not always found in the same person, but I should also say that it is easier for a good designer to become a good administrator than for the latter to become a good designer. Here there would seem to be the need for the planning officer of the system, if he be not himself an architect, to have associated with him a civic designer who has had an architectural training, not as a subordinate assistant but as the planning expert. Otherwise you may have a most efficient good administration combined with a darned bad plan—and that is not a quotation. The architecturally trained civic designer should be present in every scheme of planning, whether local or regional.

It may perhaps be thought that my talk this afternoon has been a piece of special pleading on behalf of an estimable profession. Not at all! As an ordinary citizen I am not unduly interested in architects except so far as to demand what they alone appear to be able to give—planning combining both utility and beauty.

The Sphere of the Architect.

Some people suggest that the designing of an appropriate functional environment is not the architect's job, but some other mysterious person's, and yet that is what the architect is always doing, designing an environment in which all kinds of human activities may be carried on with convenience, efficiency and pleasure. There are, of course, architectural failures. Our friends refuse to allow us to forget them. Such things are not unknown in other professions. There are doctors who fail to cure, and patients who have the bad taste to die of different diseases from those for which they are being treated, who come, so to speak, to wrong conclusions. There are barristers who lose their cases, but these things do not make us decide to go undosed to a premature end, or to refrain from engaging learned counsel when in a moment of exasperation we slay an inveterate ribbon developer. Nor should the architectural non-successes, which occur mostly in layouts and building with which architects have had nothing to do, lead us to jeopardise the beauty of England that might be built, by declining the services of the trained and qualified architect in its physical planning.

There has lately been an attempt to influence local authorities to employ only what are called "local government engineers and surveyors" to continue and complete the preparation of planning schemes. Those who have made the attempt state that they are generally opposed to the appointment of independent planners, as they consider that the best planning will be obtained by making full use of the local knowledge and technical skill of the surveyors to the local authorities within the area of the planning. Of course it will. I am all for using local knowledge, but I cannot agree that local knowledge confers planning ability. It can assist the planners, but not create them.

The advocates of the suggestion I have mentioned have apparently read Dr. Robson, for they say that the preparation of the plan will involve the work of the engineer, surveyor or geographer, sociologist, economist, statistician, and those engaged in agriculture, housing and social welfare. The one person they do not mention is the architect. Now I think it should be said frankly that the nation is in no mood to see its planning schemes restricted and frustrated by the failure to use the imagination and the trained vision which it has created in a section of its citizens, and it will, I am sure, show the utmost impatience with any professional trades union which seeks to exclude what other professional trades unions have to contribute, particularly when the suggested exclusion is of what many of us think of the highest importance, viz., the lifting of the utilitarian and practical to a higher plane. At a late hour in the preparation of this talk I had my attention drawn to a letter of Sir Raymond Unwin's (and I am quite willing to agree that the best parts of the talk are the quotations).

Sir Raymond, who in spite of a most artistic exterior was, in fact, the most practical of men, said:

"Use and beauty are in no sense the same thing. They are inseparable parts of any complete and harmonious solution of a problem in design. It is the man who can contribute this element of design over the wider range covered by town planning who is most urgently needed. While we must gratefully accept him whence-ever he may come, we are more likely to find him among those who have been long trained in the principles of design; that is, among the architects, and I entirely agree that the expert in the application of a legalistic system of town planning is hardly likely to be the best fitted to contribute this function of design."

One last word. As united nations we are fighting Hitlerism and agreeing to sink differences, formerly considered vital, in the face of the common enemy. We are fighting the enemies of disorder, squalor, ugliness, and I suggest that we too in the smaller sphere should be willing to compose our differences for the common good.

Even when we are so keenly conscious of the defects of every plan not prepared by ourselves, can we not look for the good things in every effort made by anyone sincerely working with the same object in view? For unless there is a greater measure of agreement among us the public may say at last—a plague on all your houses, give us the jerry builder's.

BOOKS RECEIVED.

Drainage and Sanitation. By E. H. Blake, O.B.E., F.S.I. 6th edition, revised by W. R. Jenkins, B.Sc. (London: B. T. Batsford, Ltd.) Price 15s. 9d., post free.

The Story of St. Mary Abbots, Kensington. By Judith D. Guillum Scott. (London: Society for Promoting Christian Knowledge.) Price 5s. net.

AERODROME CONSTRUCTION

SELECT COMMITTEE'S CRITICISMS.

THE Select Committee appointed to examine the current expenditure defrayed out of moneys provided by Parliament for the Defence Services, etc., in its 59th report examines the subject of aerodrome construction. During the present session the Committee have made further investigations into this subject, and visits have been made to twenty-eight aerodromes under construction or alteration in various parts of England, Wales, Scotland, and Northern Ireland. There were many variations in costs as between one aerodrome and another, and it would seem that the stage has not yet been reached when original estimates will in fact correspond closely with actual final costs. Following are some of the heads under which observations are made :—

SYSTEM OF CONTRACTS.—Evidence has been received about the system of contract at present in use by the Air Ministry. It is stated that the priced schedule contract has now taken the place of the target cost contract except in a very few instances, mainly those where an extension has had to be made to an old contract negotiated on the target cost basis. The Committee have made inquiries in order to discover how far the competitive principle operates in the case of the priced schedule contract, and have been informed that the percentage figure quoted in successful tenders, which resulted in prices originally averaging about 6 per cent. "on" or above the schedule prices, has gradually declined until the accepted prices are now slightly below the schedule prices. On the whole the schedule prices are fair and have provided a basis for reasonable competition.

FAILURE TO COMPLETE ON CONTRACT DATES.—The Committee are greatly concerned to find that in none of the aerodromes visited has the time laid down in the contract for completion of the work been observed. Some of the delay may fairly be attributed to difficult conditions prevailing in the task of building a large number of aerodromes—in conjunction with many other urgent public and military works—in the third year of the present war, but "one outstanding cause is the constant alteration in the plans of the work, and the delay which almost invariably occurs in the supply of the plans and drawings by the Ministry. . . . These delays, which have occurred with a regularity which is disturbing, ought to have shown the Air Ministry that the time of from five to six months named in nearly all of their contracts is incapable of realisation by the methods at present in use and in present conditions; and yet the Ministry continues to fix a period which is in practice greatly exceeded. This uncertainty of completion may well have an unfortunate effect on the operational planning of the Royal Air Force. It undoubtedly leads to increased costs, delays the release of supervisory staff, manual labour and plant for other work, and has a bad effect on the spirit of the workmen. Whenever the contract time is passed, no special attempt seems to be made to accelerate completion, *e.g.*, the progress of the contract is not reviewed and a later date of completion fixed. Contractors have become so inured to seeing contract dates of completion dishonoured that they lose the inspiration of the sense of urgency and a tendency to dawdle develops." The Committee recommend that the Air Ministry should in future consider more carefully than hitherto the time that it will take to complete each contract, having regard to the season of the year at which work will begin; the bad weather which may reasonably be expected thereafter; the amount and quality of labour and plant which the contractor can expect to secure; and the various other factors which experience has shown are likely to cause delay to the work. They recommend, further, that the Ministry should consider the advisability of inviting contractors to tender on a wider basis. They suggest that contractors should be asked to base their tenders on three elements : (*a*) price; (*b*) the time in which they undertake to complete the work; and (*c*) labour. Here should be stated the labour required and the times at which it will be required. It may also be well to consider the advisability of contractors being requested to inform the Ministry of the plant which they need. Evidence was submitted of certain shortages of plant. The Committee recommend that, before any future work is undertaken by the Ministry, complete but simple time and progress schedules should be prepared by the contractor and lodged with the Ministry, showing the date at which each portion of the work must be started, when it must be progressively completed, and when the whole must be finished.

When considering the reasons why none of the aerodromes visited had been built in the time laid down in the contract, the Committee inquired whether a penalty was ever exacted for the contractor's failure to keep to the schedule. They were told that every contract included a penalty clause, but that this had never been enforced. They believed that this might have produced in the contractors a feeling that the penalty never would be enforced. "In order that unnecessary delay should be eliminated and work pressed on as much as possible, they recommend that the date for the completion of a contract should be agreed upon by the Ministry and the contractor in consultation; and the penalties for failure to complete works within the contract time should be strictly enforced. A bonus should be paid for early completion. The Ministry should also take the necessary steps to ensure that their plans for new aerodromes are completed and finalised at an earlier stage than has normally been the case in the past, so that contractors have no excuse for delay on this ground."

CHOICE OF CONTRACTORS.—There had been certain criticism lately of the Air Ministry's choice of contractors. It was alleged that some firms had been specially favoured with an unduly large share of the available work, and that in general there had been a preference shown to the larger firms to the exclusion of the small concerns, who had found it difficult to keep their businesses going and to avoid losing their workmen and plant to their more fortunate and powerful rivals. The Committee had been furnished with a list of all the Ministry's works contracts of more than £20,000, and from this they had been able to see the extent to which the work had been distributed. A number of the big firms had undoubtedly been awarded a large number of contracts, yet the total number of contractors employed was certainly a large one.* So far as they could discover, the firms which had received a large share of the work were contractors of great experience and good repute, and the work which they had done for the Ministry had been generally satisfactory. It must be remembered that such firms were particularly well qualified to undertake work of this kind owing to their wide experience and to the fact that they had good resources of expert staff and plant. It was sometimes more convenient for the Ministry to deal with the large and well-known contractors, but it had been suggested that the Ministry should make greater efforts to employ the smaller firms, which could, if necessary, be organised in groups for the purpose. The Committee had been informed that the Ministry had taken steps to use the smaller firms so far as possible, and they hoped that this policy might prove successful.

A few instances had been reported of contractors proving so dilatory or otherwise unsatisfactory that they had to be deprived of the work on which they were engaged. The Committee have accordingly inquired what steps were taken to secure that firms which had proved unsatisfactory were denied the opportunity to tender for future contracts and that other Government Departments were warned of the Ministry's experience. They had been informed that when a contract was cancelled owing to unsatisfactory progress it was usual for the Ministry to consider the suspension of the firm from their trade lists for a period. Such suspension might take the form of a written notification to the firm, or a discontinuance of invitations to tender without specific notification to the firm. If the former course was taken, all other Government contracting departments were notified; if the latter, notification was made only when such action appeared desirable. The decision to suspend in either form was taken only after full consideration of the merits of the individual cases by the Contracts Directorate in consultation with the Works Directorate. A firm's failure might be due in part to circumstances beyond its control, and in such cases, although the firm was not suspended, invitations to tender were limited for a time to work which was not specially urgent. It was stated that due care was taken not to give more work to a contractor than he was capable of carrying out efficiently, and in illustration of this a recent instance was quoted where a firm which tendered for two contracts was only given one as it was not thought capable of carrying out both works efficiently at the same time.

LABOUR.—*Allegations of excessive wages.*

Much of the time spent in visiting aerodromes and taking evidence thereon was devoted to an examination of the question of labour, the cost of which forms such a large part of the total cost of construction. In so doing the Committee had in mind a number of allegations, which had been made from time to time, of excessive wages earned by unskilled men on work of this kind, of idleness and slack work, and of absenteeism. While each of these allegations had been dealt with separately, it might be stated that the Committee in general took a favourable view of the way in which the workmen were doing their work. "Contractors have had to contend with shortage of labour; though steps have since been taken to meet this shortage and to provide more labour for aerodrome

* Figures were supplied by the Air Ministry of the contracts worth £20,000 or more which were in progress at a date early in 1942, together with the names of the contractors concerned. Of the total number of 121 contractors, two were engaged on contracts worth £5,000,000 or more, eight had contracts worth £2,000,000 or over. In fact, 6.6 per cent. of all the contractors were responsible for 40.9 per cent. of the value of all the work and 1.7 per cent. were responsible for 22.5 per cent. of the work. Thirty-three out of 121 contractors, or 26 per cent., had five or more contracts, and these 33 contractors had between them 66 per cent. of the total number, and 71 per cent. of the total value, of the contracts.

construction. Contractors cannot, as they would in peace time, choose the men whom they would wish to employ; they have to accept men sent them by the local Employment Exchange of the Ministry of Labour and National Service, and these include a high proportion of elderly men, and men with sufficient disability to unfit them for service in the armed forces. The young, strong men of 20 to 35 years of age are no longer to be had." In view of the allegations of unduly high wages being paid for work on the construction of aerodromes, the wages sheets at most of the aerodrome sites visited were inspected and details of the wages paid were furnished in writing. The Committee had come to the conclusion that there had been considerable exaggeration of the amount of wages commonly earned on work of this kind, particularly by unskilled men. There were instances of large weekly sums earned by some of the more highly skilled men, such as scraper drivers working long hours at a high rate. In other cases, where the system of bonus payment instituted under the Essential Work Orders operated, members of gangs had earned considerable addition to their basic wages by means of hard work and long hours. The total sums received by an individual workman might also include a subsistence allowance of 24s. 6d. a week to men living away from home, allowance for travelling time where long journeys had to be made to and from work, and overtime payments at time and a half, or double time on Sundays, where extra work had to be done in the long days of Spring and Summer. In the case of the public works visited during the course of the present inquiry, the average earnings of the workpeople employed did not appear excessive. Figures obtained of the gross earnings (including bonuses, allowances for time lost in travelling, etc.) showed that on no site did the average earnings of labourers exceed £5 15s. 8d., and in some they fell much below this figure, and were as low as £4 10s. . . . . Particular inquiry was made into the wages paid to boys; and evidence was given of the undesirable effect upon agricultural workers who, although engaged in work of national importance in the production of food, were receiving much less than boys of 17 or 18 who left agricultural work for the more attractive emoluments offered to unskilled workers on some neighbouring aerodrome. At one time boys were paid at the same rate as men if they were doing men's work. Since November, 1941, however, the position had been adjusted, and boys were now paid a proportion of the rate paid to men for the same work, according to age.

"It may be noted that, for the entire country, the average total earnings of workers employed on public works contracts have shown a smaller increase since the beginning of the war than those of workers in industry generally. According to the *Ministry of Labour Gazette*, June, 1942, the percentage increase in average earnings between October, 1938, and January, 1942, was 32 per cent. for public works and 46 per cent. for industry as a whole."

Allegations of Slackness.—Statements have appeared in the Press, and had in some cases reached the Committee privately, that idleness and slackness were prevalent among the workmen on certain airfield contracts. . . . While this question certainly called for the earnest consideration of the authorities concerned, the Committee did not believe that allegations of widespread idleness among workmen on aerodrome construction were justified. It had also been alleged that absenteeism was very prevalent among men employed on this work. The Committee were not able to give particulars of the rate of absenteeism at all aerodromes under construction or alteration, but, taking the figures of ten aerodromes of which they had definite information, the average figure at these aerodromes was between 5 and 6 per cent. This figure was inclusive of sickness and other unavoidable causes.

The Committee believe that something can be done to prevent the shortcomings referred to above by closer attention to the welfare of the workmen. They are aware that most contractors provide canteens on the sites, but they would urge the importance of ensuring that the best use is made of the food available by good cooking; they believe that more attention to the men's welfare in various minor matters, including a sympathetic consideration of the desire of those men who are separated from their families for visits home at reasonable intervals, would be repaid in better work and more sustained effort on the part of the workmen.

Discipline and the Essential Work Orders.—Extensive inquiries were made about the effect of the Essential Work Orders, particularly in regard to the system of "payment by results," and the disciplinary provisions of the Orders. The system of "payment by results," which is in effect the payment of a bonus on output in addition to the ordinary time rate for many of the processes in building and civil engineering work, is in force at all sites scheduled under the Orders as work of an essential nature. The Orders are limited to Great Britain, and do not apply to Northern Ireland. The general opinion of witnesses was that the output of work had been much increased by the system, but some witnesses declared that the improvement in output had been gained at disproportionate cost. Some detailed criticism was made that in certain trades the bonus was insufficient, and that in other trades the system could not for practical reasons be instituted, and consequently men in those trades were not offered a similar incentive to greater efforts. The disciplinary provisions came in for more criticism. Most contractors said that the control of the workmen had been taken out of their hands, because they could only dismiss a man for gross misconduct, and the former hour's notice of dismissal had been increased to a week. In normal times, a man who absented himself from work without a good reason could be immediately dismissed, whereas now application for leave to dismiss has to be made by the contractor to the National Service Officer, who has in turn to refer the application through the usual channels to his own headquarters at the Ministry of Labour. In some cases this procedure has taken as little as a week to function, but in others the process of getting a case decided takes so long as to be practically ineffective. "While the Committee realise the importance of those provisions of the Orders which are intended to safeguard the security of the workman in his employment and to prevent undue turnover of labour, they are impressed with the necessity for the preservation of the contractor's power to control his men and maintain discipline, and they therefore recommend that steps should be taken to ensure that disciplinary action for misconduct or absenteeism be taken as speedily as possible."

Difficulties in Construction.—The Committee have been informed that much delay has occurred in a certain area in the transport of machinery on the way to aerodrome sites, and that valuable plant has been lost, owing to wrong or inadequate marking of the goods and the lack of sufficiently skilled men to handle and recognise them when they are unloaded at ports and goods stations. They recommend that men with the necessary technical knowledge should be stationed at these places to avoid losses and delays. Some evidence has been given of a shortage of plant available to contractors. The Committee are informed that the Government have taken steps to secure a supply of the type of plant required from overseas. They would emphasise the importance of this, and their view is that a generous provision for these needs would be repaid in savings in time and cost.

Central Organisation.—The Committee understand that in many cases changes in plans have not been communicated by the department of the Ministry which makes such changes to the department which is responsible for the supply of equipment needed early enough for the equipment to be supplied on time, and the progress of the work has thereby been delayed. They recommend that the arrangements for liaison between the two departments of the Ministry should be improved. There is no doubt that some of the delay in completing aerodromes could be avoided if the Ministry would adopt a system of priority whereby the necessary supplies of labour, plant, materials and equipment could be concentrated at the sites which it was decided were the most important to finish first. Some inquiries have been made into the remuneration of the resident engineers employed by the Air Ministry to supervise the work at each aerodrome site. These officials are generally paid salaries on a considerably lower scale than that of the engineers employed by the contractors as resident agents on the sites, whose work it is their duty to examine and approve. The Committee recommend that this matter should receive the earnest attention of the Ministry. In regard to the fact that the Ministry of Aircraft Production, as well as the Air Ministry, undertake the construction of aerodromes in certain cases, the Committee doubt the wisdom and economy of two Departments carrying out work of this kind, which is admitted to be of a specialised character; and they consider that this duplication is wasteful of skilled personnel. They accordingly recommend that consideration be given to the Air Ministry undertaking all the aerodrome construction for the Government.

WELSH SCHOOL OF ARCHITECTURE

Recent Events.

During the period that the "Living in Cities" exhibition was on view in the National Museum of Wales, in Cathays Park, Cardiff, visits to it were paid by Cardiff Civic Society, the Welsh School of Architecture, and the South Wales Institute of Architects, Central (Cardiff) Branch. Mr. Hope Bagenal, D.C.M., A.R.I.B.A., visited the Welsh School of Architecture on November 6 and 7, gave two lectures on architectural acoustics, and also criticised the designs prepared by the students, based on a programme drawn up by Mr. Bagenal and the staff of the School.

Cardiff Technical College scholarships covering tuition fees and maintenance grants of £40 per annum for three years have been awarded on the results of an examination held in the last week of September to the following candidates for admission to the Welsh School of Architecture: P. A. Evans (Tonyrefail Secondary School), D. W. Fletcher (Whitchurch Secondary School), and C. Dyer (Newport High School).

A NEW TECHNIQUE FOR BUILDING?

MR. BOSSOM'S TALK TO L.M.B.A.

A Council meeting of the London Master Builders' Association, held last Thursday at 47, Bedford-square, W.C.1, was addressed by Mr. A. C. Bossom, M.P. Mr. W. E. Rice (President was in the chair.

Mr. Bossom said building was a major industry and would be of the greatest importance after the war. The nation looked to the Army, Navy and Air Force to win the war, but it would look to master builders to win the peace. They would have so to plan post-war building that their great craft would be able to give re-employment to millions of men and women coming into the industry on a scale never contemplated before. In that industry before the war there had been about 1,200,000 men and women employed, with 2,000,000 in ancillary trades; but after the war the total number would be somewhere about 7,000,000; and through master builders, channels must be opened to convey these inexperienced entrants into activities for which they had not been trained. Equally with the providing of employment there would fall upon the shoulders of master builders the task of erecting new factories, offices, etc., heated, ventilated and in every way provided so as to give maximum comfort to the post-war worker. That audience knew the number of factories we had in this country where ventilation was bad and lighting impossible. Since the war started he had been with a sub-committee visiting militia camps, aerodromes, factories, etc., and that commitee had said it was not the builders so much as the owners who were at fault in those factories where work was being done under bad conditions; but in such cases builders should call attention to defects they saw in planning and arrangement.

After the war builders would have to create 4,000,000 houses already overdue, and make those houses homes fit for women and children to live in. The production costs of factories and homes was an inescapable overhead charge on every article manufactured, and if we were to compete in foreign markets with people at a lower standard of living we must produce at the lowest possible cost, and irrespective of cost our goods must be entirely satisfactory. Another matter was that we were willing to pay 10s. in the £ income tax while fighting for our lives, but should not be willing to do it after the war, and ought not to be required to do so. Many changes would be necessary if our building was to be as good as possible and yet inexpensive. It might be said that British building had been satisfactory for a century, so why change the process? The answer to that was that building was the most sheltered major industry we had, used home-produced materials almost exclusively and had made less advance during the last 30 or 40 years in this country than in any other part of the world. In that matter he could speak from experience. Returning to this country after years of absence he had found that although general design and arrangement had improved considerably, the drudgery of living for the housewife still prevailed just as it had done more than a quarter of a century before. Her hard work was just about the same as it had been. We had to build 4,000,000 houses, rehousing one-third of the nation, and must build those houses so that the woman was not crushed by drudgery.

Everyone would agree that if men were to work in comfortable factories, equally must drudgery be eliminated from the home. All must be given the benefit of scientific improvements. This would cost money, but funds would be available for modern improvements by reduction in the cost of the main structure provided certain things were modernised. How could cost be saved in the main structure? By educating young architects, mechanics and craftsmen to do their work in the latest and most up-to-date way. There should be an open mind ready to accept new inventions; the mechanic must understand what the architect was getting at, and vice versa. The mechanic must be taught to get the maximum out of the modern high-speed tool. He (the speaker) did not know of any school which taught the full value of the high-speed tool, or how to adopt and adapt new materials. The leaders of the industry must take the keenest interest in the schemes of education provided, and must see that those who were to follow them were well informed as to their own particular corner of the industry as well as its general requirements. The trades should be interlocked with one another and all harmonised into a proper time and progress plan.

Out-of-date Laws and Regulations.

But it would be useless to instruct the young architect and craftsman in the latest methods unless laws and regulations were so modernised as to make their use possible. As a rule our laws were a long way from giving the maximum economy of speed in construction. Some towns had their own Building Acts, others worked under the by-laws of the Ministry of Health, and every local authority of any size had the privilege of introducing its own modifications into these. You could get a new form of construction approved in Liverpool, but could not use it in Leeds, and so on. The same piece of wood was graded at of more or less strength in different places. The fire-protection regulations on the two sides of the same street might not be the same. Instead of all these different laws and regulations one standardised code of principles should be introduced, capable of modification without having the laws continually changed. Once the nation's Building Research Station had approved new methods or materials, those methods and materials should be legally available for the entire country. Moreover, to obtain permission to erect a building of any size in some London boroughs, half a dozen permits were required from different authorities; the number should be reduced to one or at the most two. The law as to ancient lights worked out largely as legalised blackmail.

Research to-day was under the control generally of the Building Research Station; looking into such subjects as lighting, heating and ventilation would considerably widen the range of research. Often work was being done that did not cover the whole field, particularly as part of that work was financed by Government and part by firms who desired approval of their products. Universities such as those at Leeds and Birmingham were doing valuable work, but it was not co-ordinated, and there were few tasks of greater value than to see all this work co-ordinated, given Government approval and made available everywhere.

Mass production, standardisation and prefabrication raised in our minds a picture of repugnance. But look at the possibilities. In the United States, cargo ships had been built in seven days from laying of keel, where not a year ago it had taken 210 days to do the same thing. There was very little difference between building a ship and building a house. The same principle applied: you must know what you wanted when the job started. Whether we liked skyscrapers or not, they were among the wonders of the modern world. Often they cost from £1,000,000 to £1,500,000 to erect, but they were completed in every detail in from a year to fifteen months. Probably everything that went into them was prefabricated and the result of mass-production. In London there were a few buildings with the one-pipe plumbing system: in America and in some parts of Europe it was universal. It did all the work our laws required to be done, and with only two-thirds of the piping. In America all such work was done in factories and brought to the job. The same remark applied to carcassing as well as to a vast proportion of the details for the interior. In the modern American building only finished articles and materials were brought to the site, and they were in such a condition that very little work was required before they went to their final place.

The best results would not be obtained without a time and progress schedule. Carpenters and masons in New York got about three-and-a-half times the wages that would be paid in London, and a bricklayer got five times as much; yet the total cost of the building did not vary more than 1 or 2 per cent. from what it would cost in London. If we would only use a time and progress schedule thoroughly, working it out logically with prefabrication, we could do as well as was done in America. Before work started a schedule should be laid out stating the latest day when the architect must hand over his plans, so that the contractor could direct the various trades in a proper way. He (the speaker) had never seen that in this country, nor had he seen any prearranged schedule defining when the mechanics handling the different jobs must be available so that the work might synchronise. One Government Department had gone into this question lately, but had made a time and progress schedule of such detail that going into its many ramifications would take a battery of Philadelphia lawyers a month of Sundays to train the builder to apply it. To be effective a time and progress schedule must be of elemental simplicity, and understood by contractors, sub-contractors and operatives, so that all could understand when they had to come on to the job and when they must finish. It ought to be made part of the contract, the owner should sign it and give the builder the information before the work was put in hand. Owners must be trained to realise that all decisions must be made, and all questions as to materials, etc., settled, before the building was begun. In England, owners thought they had a right to change their minds and hold up conditions, and at the same time they wanted to make contracts at a minimum price. The owner should be presented with a questionnaire, if necessary, of 200 or 300 questions to be decided before work was undertaken. If time was wanted to make decisions this should be allowed, but once a decision was given only a matter of the utmost importance should warrant its alteration. Once the architect had all the information he should make his drawings in every detail. Recently he (the speaker) had been told of a case where an addition of 12 per cent. to the cost of brickwork had been entailed, and every penny of that added expenditure could have been saved if the drawings had been completed and handed over to the general

contractor for him to hand to the sub-contractor.

Our system of contractor, sub-contractor and specialist working together gave us some fine buildings, but half or even two-thirds of the work done by sub-contractors on a measured building was not the result of competition. Sub-contractors should be selected by competition, and their contracts passed through the general contractor. Specialists and sub-contractors helped the architect by drawings and specifications, but if we were to do our work properly after the war, architect and engineer must make the drawings for all trades, getting the assistance of specialist technicians if necessary, and letting work out on a competitive basis rather than by selection.

If work was to be properly carried out on a competitive basis, and executed in accordance with a time and progress schedule, strict supervision was essential. At least once a fortnight there ought to be a meeting of interested sub-contractors, so that each could state whether his work was up to schedule, or why it was delayed. If more men were needed to bring work along, or trouble existed anywhere, such matters could be settled. If material was being delayed, expeditors should be sent to the place of manufacture, and travel with it so that it was not left on sidings. An expeditor travelling with the stuff could get results that could not be achieved by letters or telephone calls.

A New Building Organisation.

"I am not exaggerating," concluded the speaker, "when I say that unless you treat the entire building industry as an exact science you will find yourselves driven under by widespread soulless control. Only this week I have been informed that there is most likely to be set up an organisation—for want of a better name I will call it an organisation of 'building managers'—who, in the one organisation, will have men capable of advising owners where to buy property, where to build their new plants or establish their town hall or build a new housing estate; who will then give advice about the architect or engineer to be employed; who, in turn, will let all the sub-contracts and would only retain what, in form, would be a major builder to give general co-ordination, and they themselves would provide all supervision, look after all accounts, and, finally, stand ready even to advise on finance, and, if necessary, provide it.

"Would this be an advantage nationally? I emphatically do not think so. Builders who can handle their work and look after their mechanics have a genuine love for the buildings they create, and it would be no advantage to anybody to have in control a soulless financial organisation attempting to squeeze out and grind down everybody concerned into a machine-made product."

MR. H. C. HARLAND (ex-Vice-President), moving a vote of thanks to Mr. Bossom, said if something could be done so that buildings could be completed according to plan without variations, that would help in cheapening and expediting construction. As to materials, in his opinion there was nothing like the old-fashioned bricks, mortar, masonry and timber; but if the Building Research Station could produce new materials in substitution of these old ones and to facilitate building, those materials would be adopted.

In his acknowledgment, MR. BOSSOM returned to the point about household drudgery. Every house put up, he said, should have electric or gas cooking and refrigeration and all the mechanical gadgets such as vacuum cleaners to take the drudgery out of the housewife's life.

SCHOOLS OF LANDSCAPE ARCHITECTURE

INSTITUTE OF LANDSCAPE ARCHITECTS' PROPOSAL.

IN the rooms of the Royal Society, Burlington House, W.1, a meeting was held on Wednesday, November 18, of the Institute of Landscape Architects. The President, MR. G. A. JELLICOE, F.R.I.B.A., was in the chair.

LADY ALLEN OF HURTWOOD said that the purpose of that present meeting was to enlist support for an endeavour to find adequate facilities for the proper training of landscape architects by creating not less than four schools of landscape architecture, preferably associated with schools of architecture, civil engineering and town planning.

MR. JOSEPH ADDISON, F.R.I.B.A., said that for the successful and economical conduct of a full-time professional course in landscape architecture the minimum annual intake of students should be from ten to fifteen if combined with other courses having a similar basic curriculum, and forty if the course was to be independent. The latter figure represented in a four years' course 120 to 150 students in attendance. The approximate number of qualified town planners in this country was one per 57,000 inhabitants, and, assuming the demand for landscape architects required a ratio of one landscape architect in a consultative capacity for every eight town planners, and, in addition, one general practitioner for every 100 architects, a total of from 260 to 300 qualified landscape architects would be required. The Institute might consider it advisable to encourage intending members to qualify in one of the basic professions of architecture, town planning or horticulture in the first instance, and follow this by a post-graduate course in landscape architecture.

MR. RICHARD SUDELL said he would like to stress the need for using existing botanical and horticultural gardens such as those at Kew, Wisley, Cambridge, Edinburgh and Glasnevin. Every student of landscape architecture should know the trees and shrubs used in landscape architecture, and he should know a little of the way plants lived together on different soils. Thoroughness in training was essential, but even more necessary was to teach the student to develop his own creative faculties.

Concluding, the speaker said a site was cleared in Central Manchester before the war on which it was proposed to build an art gallery. Owing to the war the art gallery scheme was suspended, and the Parks Committee were asked to do something about the site, which was ugly and covered with débris from the previous buildings. It was decided to put down as a temporary surface a few lawns and beds of flowers. The effect was so magical in the heart of grimy Manchester that everybody said they would much prefer the garden to the art gallery. Not that he wanted to suggest they should not have the art gallery, but the art gallery and other civic buildings could be appropriately planned around a spacious garden-like civic centre, and the moral he would draw for all planners was: Daringly introduce gardens into our old towns and cities. They will be sure of public support.

MR. CLOUGH WILLIAMS-ELLIS said to-day we were in for a new and splendid age, or else for chaos. We could not plan for chaos, so let us work for splendour, especially as by doing so we promoted its likelihood. There had been a time when man's presence had been proclaimed by added order and added beauty alike in country and town; but instead of being the background of ordinary life this order and beauty had dwindled now into a private and personal possession. If it got outside the house at all it did not go beyond the garden wall, or, at the most, the private park. It was said we could alter that by training landscape architects, and he agreed provided these practitioners really knew their stuff as architects. The landscape architect must know the art of architecture, though it was not so necessary that he should know the science. As to the training of practitioners, he felt we had got not only to educate these, but to educate those who would create the demand for their services. Between the landscape architect and the community he served local authorities stood like a dark and obscuring glass. The ordinary prominent citizen, the man who became a member of a local authority, was best impressed by an academic O.K. of some sort, and it would be a good beginning to try to get a Chair of Landscape Architecture founded in one of the universities.

DR. DUDLEY STAMP said it was a guiding principle of the Scott Report that the countryside of Britain had grown up into its present form through a long sequence of its use in different ways by the hand of man. He wondered if people realised how many of the things they admired were the results of planning, particularly planning on a large scale? If we were going to plan the future for the most effective utilisation of the land we must not start from the amenity point of view. There must be a close relationship between the landscape architect and those who earned their daily bread from the land. The landscape architect must be soaked in natural science. Suggestions had been made that the proposed schools should be linked with architecture and civil engineering; they should also be associated with the great horticultural gardens of the country. They should be in association with agricultural schools.

MR. G. L. PEPLER was not able to be present, but he sent a letter which was read by Mr. H. S. Dodd, Chief Regional Planning Officer of the Ministry of Works and Planning. In the course of this, Mr. Pepler compared the town planner with the composer of orchestral music, who must know exactly what each instrument could do but need not be himself an expert player on any one of them. In the orchestra of town planning the landscape architect had an important part to play.

PROFESSOR ABERCROMBIE said nearly every speaker had mentioned the need for co-operation between the different technicians concerned with planning. When the first school of planning was started in this

country the instructors included an architect, an engineer, a surveyor and a landscape designer. That afternoon they had heard that another expert was necessary, namely, the agricultural planner, to plan the country for its great industry, agriculture. If there was to be satisfactory planning there must be co-operation from the start as to the siting of roads, pylons, etc., afforestation and all subjects of landscape design. It should be made clear to the authorities, especially military ones, that they would meet with less opposition if they had first-rate landscape advice from the outset. The Government and local authorities ought to realise that a fully trained landscape architect was necessary for their work.

MR. GILBERT JENKINS said the seventeenth century had seen the emergence of the architect as a professional practitioner, the late nineteenth that of the town planner; and it was only now that the need for the landscape architect was realised in England, although there were many hundreds fully trained and publicly employed in the United States.

The CHAIRMAN, closing the proceedings, said that one of the greatest dangers of physical building after the war lay in professional compartmentalism, and he hoped the barriers would be broken down before it was too late. The first Chair of Landscape Architecture, wherever it was founded, would be a symbol of this joint service to the community.

IN PARLIAMENT

Housing Policy.

During the debate on the Address in reply to the King's Speech in opening Parliament, the question of housing policy was considered and examined.

MR. ERNEST BROWN, the Minister of Health, in his reply to the debate, said that he knew from the results of his personal observations made as a result of visits to different areas, the bad housing conditions under which the people were living. They were conditions which ought not to be, and would not be, tolerated in peace-time. Every member of the House would share his anxiety that something should be done to alleviate those conditions as quickly and effectively as possible. Before the war houses were being built at the rate of 350,000 a year. During the three years of war it had been possible to bring into use only 135,000 houses. The majority of those were under construction when the war began. This number had been offset by dwellings destroyed or irretrievably damaged by enemy action. Before the war slums were being swept away at the rate of 60,000 dwellings a year, a very remarkable performance. Since the war few slum dwellings had been demolished. The position was such that in some areas they had had to authorise to local authorities by Defence Regulation powers to issue licences to enable slum houses to be occupied, and as a result many people—he gave the low estimate of 100,000 families—were continuing to live in houses which, three years ago, were legally condemned as unfit for human habitation. That was a grim fact. A few houses, including those which had been licensed, had had the minimum necessary repairs done to them. Also, before the war a large number of houses were being regularly kept in good repair, but they would not have been in good repair had this work not been regularly done.

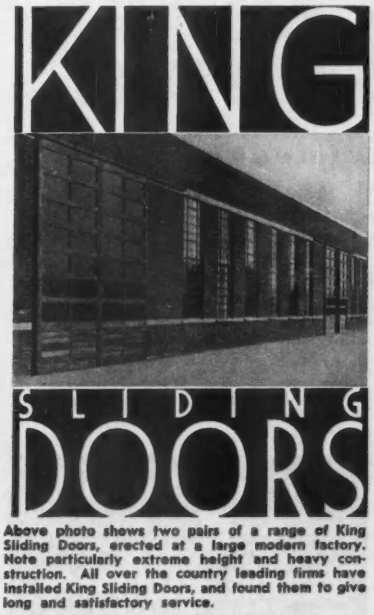
During the war they had had to concentrate on first-aid repair of houses damaged by enemy action, because some 2,750,000 houses had been damaged, apart from damage to glass. This was the background against which they had had to face a large-scale movement of the population and a splitting-up of families, and this had multiplied the demand for occupation. The pressure had been intense. On the whole they had found it possible, thanks to the building of 4,000,000 houses between the two wars, to deal with these major movements of population without incurring serious trouble. But in some districts now there was dangerous overcrowding, and this was aggravated by different families being compelled to share the same house. They had managed so far, but the situation must become steadily more difficult unless new houses were built and existing houses were kept in a tolerable state of repair.

The Secretary for Scotland and he had their Housing Advisory Committees and they had sub-committees hard at work on the technical aspects of the problem so that they could be ready for whatever was coming.

He would call the attention of the House to one particulor problem which ought to have priority of building labour and materials as soon as they were available. There were many houses which, though not war-damaged, were becoming dilapidated and unoccupiable because of the lack of ordinary maintenance. Although local authorities had ample powers under the Housing and Public Health Acts to ensure repairs to working-class houses, the difficulty of securing labour and materials made the powers often unenforceable. He was already receiving representations from local authorities concerned with this problem, emphasising their difficulty in getting essential work, such as roof repairs, and water supply, which were necessary for the health and comfort of the tenants, carried out to houses. These authorities said that willing owners were unable to obtain the necessary labour and materials and that unwilling owners, where serious nuisances existed, hid behind the difficulty.

The crux of the problem was labour and material. Much labour which might have been available for the ordinary repair of houses had been utilised in the gigantic task of first-aid repairs to war-damaged houses. The bulk of the labour which was now left after the demands of man-power from the Services was engaged on strategic necessities, such as camps, aerodromes and Service hospitals. For some months it would be difficult, if not impossible, to find additional labour for other purposes. When conditions permitted, the question of whether an increasing number of men could not be made available for the repair and maintenance of houses, without impairing war production and the efficiency of the Armed Forces, would become eligible for consideration. Already, in consultation with his colleagues, he was examining the possibilities of labour and material being made available for the extended repair of empty houses in order to bring them back to use. He still cherished the hope that, even before the war ended, it would be possible to make a start on a modest programme of building new houses.

Eighteen months ago he reconstituted the Housing Advisory Committee. It was a very strong and powerful Advisory Committee. They had sub-committees hard at work, in consultation with all concerned, on particular aspects—technical problems of types and designs and methods and material.—and the conditions in which both local authority housing on the one hand, and private enterprise housing on the other, could successfully operate to the maximum, so that they might be ready to start when the war ended on a big and ambitious programme. They were busy working out estimates of a programme for the first ten to 20 years after the war, but he was bound to say that if they were to get a good start on that programme they must "run in" the machine. They must make a limited start inside the nucleus of building labour available, in order to provide the opportunity for training apprentices. Whatever they might do in training elsewhere there was no better place for training apprentices in house building than on the job itself. That was what he meant when he spoke about running in the machine. Their immediate problem was only a part of their long-term programme. He realised the many difficulties confronting those who had at heart this great health service, for housing was primarily a health service. It was a local government service, bound up with all the other local government services. The debate would give him and the Secretary for Scotland greater resolve and confidence to see that the offensive against the evils of bad housing should not be delayed one day longer than vital war needs demanded.



Above photo shows two pairs of a range of King Sliding Doors, erected at a large modern factory. Note particularly extreme height and heavy construction. All over the country leading firms have installed King Sliding Doors, and found them to give long and satisfactory service.

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Scott and Uthwatt Reports.

MR. PARKER asked the Paymaster General if he was aware, at the time when arrangements were made for the examination of the Scott and Uthwatt Reports by his department, of the association with the building trade of the principal official who would thereby be concerned.

SIR W. JOWITT reminded MR. Parker that the Government enjoyed the services of large numbers of men who for the time being had severed, or substantially severed, their connection with industry to further Government business in the press of war. No embarrassment and much advantage arose from these arrangements. He was completely satisfied that Sir Alfred Hurst's work in his office was unprejudiced by his previous association with the building trade.

Key Men Called Up.

MR. W. J. BROWN asked the Minister of Labour whether, in determining on the call up of key men in the building industry, such as plumbers, carpenters, electricians, etc., he had regard to the possible demands on the building industry of future enemy air raids; and whether he was satisfied that the building industry would be able to cope with the situation which might arise from heavy bombing.

MR. BEVIN said that arrangements for calling up building workers had been made in consultation with the Minister of Works and Planning, and the answers to both parts of the question were in the affirmative.

OBITUARY

Ernest C. Bewlay, F.R.I.B.A.

By the death of Mr. Ernest C. Bewlay, which took place in Birmingham on November 18, the world of architecture loses a notable practitioner and a great advocate. Born in 1872, Ernest Chawner Bewlay was articled to the late J. A. Cossins, of Birmingham. In partnership with the late Frank Barry Peacock he laid the foundations of a large and varied practice, which included much bank work. He designed or altered considerably over 100 banks, and his churches include St. Agnes's, King's Norton, and St. Peter's, Maney. He designed the Victoria Law Courts Extension and the new Coroners' Court, the Yardley Almshouses, and also business premises for Chance and Hunt, Ltd.; Kynoch's; Lightfoot Refrigeration Co.; and others. Much domestic work was included in the firm's practice, including a villa at St. Raphael A.M. For the design of the Coroner's Court, the firm received the R.I.B.A. bronze medal for Warwickshire, South Staffs, Shropshire, Hereford and Worcestershire in 1937. Mr. Bewlay, who was architect to the Birmingham City Council for the upkeep of Aston Hall, was vice-president of the R.I.B.A. for 1931-33, and also served as Chairman of the Allied Societies' Conference for some years. Before the war he was called in to advise Whitby Council on the preservation of the old fishing port. He also was a supporter of the Council for the Preservation of Rural England.

H. J. T. Gowen, L.R.I.B.A.

We regret to record the death, at the age of 63, of Mr. Harry Josiah Thomas Gowen, who had been in the architectural department of Messrs. Youngs, Crawshaw and Youngs, the Norwich brewers, for 42 years. As architect to the company he had designed, in the last 20 years, many hotels and public-houses in Norwich and Norfolk. As much of his work lay in adapting old buildings to modern needs, it was not surprising that he should take a great interest in the work of the Norfolk and Norwich Archæological Society. Mr. Gowen was a member of the Council and honorary editor of the Year Book of the Norfolk and Norwich Association of Architects. He was a member of panels set up by the Ministry of Works to protect from demolition buildings of historic or architectural value damaged by air raids, and to advise on the preservation of iron railings of historic value. He became L.R.I.B.A. in 1938.

James A. Morris, R.S.A., F.R.I.B.A.

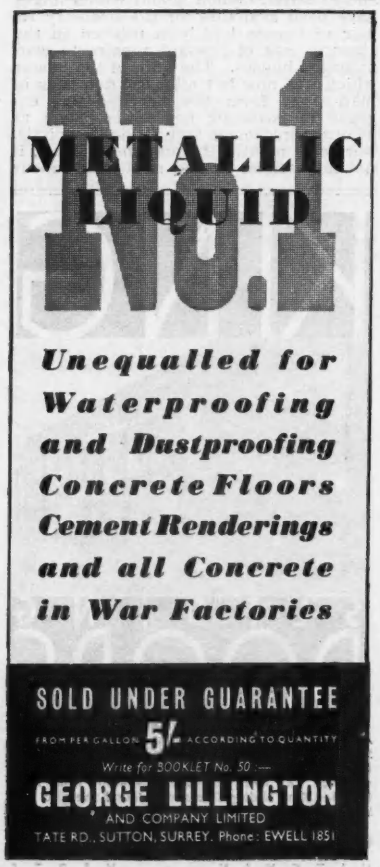
The death has taken place, in Ayr, of Mr. James Archibald Morris, R.S.A., in his 86th year. A long and distinguished architectural career began with art studies at the Glasgow School of Art and the Slade School, in London, where he worked under Alphonse Legros. Later he turned towards architecture and studied at the R.A. schools. He was articled to A. Lindsey Miller and commenced practice in Ayr in 1881, in which year he was admitted an Associate R.I.B.A. A wide and varied practice was built up, helped by success in competitions for the United Presbyterian Church at Prestwick; the Russell-street School, Ayr; and the Unionist Working Men's Club, Ayr. He also designed the Art Schools, Ayr, remodelled Ayr Academy, while the considerable volume of restoration work executed included the preservation of Crossraguel Abbey, Ayrshire; the Auld Brig of Ayr; Greenan Abbey; and Savoy Croft, Ayr. Hinton House, Northants, was one of the few buildings designed in England. Mr. Morris was elected a member of the Royal Commission on Ancient Monuments for Scotland in 1930, and was a Fellow of the Royal Society of Edinburgh and of the Society of Antiquaries in Scotland. He was elected an Associate of the Royal Scottish Academy in 1916, and became a Member in 1931. He became F.R.I.B.A. in 1889. His publications included "Crossraguel Abbey," "The Brig of Ayr" and "An Appreciation of Robert Burns."

J. E. Holman.

The death took place suddenly on Saturday of Mr. John Edmund Holman, Surveyor of the Palace of Westminster. Mr. Holman, who was 58, and succeeded Mr. Thomas Wilson in 1935 as Superintendent of Works at Westminster, began life as a carpenter at Kew Palace and Gardens, where he subsequently rose to be Superintendent of Works. Since 1935 he had been responsible for the maintenance of the Houses of Parliament and the preservation of the fabric. The strain was a heavy one, especially during the raiding, which culminated in the destruction of the Commons chamber. Events which necessitated the Surveyor's care during his tenure included the trial of Lord Clifford, the lying-in-state of King George V., the Coronation of the present King, and the reception to President Lebrun.

Richard W. Fryer.

We regret to announce the death, on November 12, of Mr. Richard W. Fryer, of the Kleine Co., Ltd., at his home at Maidenhead. He represented the company in London for 36 years, and in spite of an unfortunate lameness, overcome by a most engaging personality, was a well-known and respected figure amongst architects, engineers, surveyors and others connected with the building trade throughout the Metropolis.



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MANCHESTER SOCIETY OF ARCHITECTS

STUDENTS' PRIZES, 1942-43.

The following prizes have been awarded in competition to student members of the Manchester Society of Architects and affiliated Societies :—

Senior Measured Drawings Prizes.—First (Bradshaw Gass Prize) : J. E. Partington, Manchester University School of Architecture. Second (Society's Prize) : Not awarded.

Junior Measured Drawings Prize.—Society's Prize : R. Byram Duckworth, School of Architecture, Municipal School of Art. Special Prize : Derek A. Cobb, Manchester University School of Architecture.

Sketches Prize.—Beaumont Prize : Derek A. Cobb, Manchester University School of Architecture.

Essay Prize.—President's Prize : David R. Byram, Manchester University School of Architecture.

Senior Design Prize.—First (Society's Prize) : Corporal K. R. Taylor, Manchester University School of Architecture. Second (Woodhouse Bequest) : J. E. Partington, Manchester University School of Architecture.

Junior Design Prize.—Society's Prize : Denis Bowman, Manchester University School of Architecture.

NEW COMPANIES

The particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 and 117, Chancery-lane, W.C.2, from the documents available at the Companies Registry.

Hamblins Suppliers, Ltd. (376460). Regd. Oct. 3. 1, St. Martin's, Leicester. Contractors, builders' and decorators' mchts., etc. Nom. cap.: £1,000. Dir: C. W. York, 116, Aylstone-lane, Wigston, Leics.

Birtley Building Supplies Co., Ltd., (376,449. Regd. Oct. 3. 123-125, Clayton-st., Newcastle-on-Tyne. Nom. cap. : £1,000. Dirs. : F. A. Gustard and W. A. Whitehead.

Kirkland Builders' Supply (Leeds), Ltd. (376547). Regd. Oct. 8. Nom. cap.: £1,000. Dirs. : A. Smith, 19, Jessamine-av., Leeds, 11, and A. H. Anderson.

Concrete Waterproofers, Ltd. (376315). Regd. Sept. 26. 136, Fenchurch-st., E.C.3. Nom. cap.: £2,000. Dirs. : P. Douglas Yeo and Evelina M. Yeo, 10, Winchester-park, Bromley, Kent.

Jack Brown (Building Contractors), Ltd. (376324). Regd. Sept. 26. Nom. cap. : £1,000. Dirs. to be apptd. by subs., W. Buckley, Caumhauld House, Byng-pl., W.C.1 (acct.) and C. N. de Wyser, 11, Fitzjohn's-av., N.W.3. (acct.).

William John (Llantrisant), Ltd. (376374). Regd. Sept. 29. Castle House, Llantrisant, Glam. Bldrs., etc. Nom. cap., £2,000.

John Noble (Builders and Contractors), Ltd. (376361). Regd. Sept. 29. Bldrs., etc. Nom. cap.: £300. Dirs. to be apptd. by subs., Margaret L. Coates and Muriel F. White (clks.), 69, Moorgate, E.C.2.

Geo. Downs and Son, Ltd. (376386). Regd. Sept. 30. 50, Logan-rd., Bishopston, Bristol. Bldrs., contractors, etc. Nom. cap : £2,500. G. W. Downs, 6, Phœnix-grove, Bristol, 6.

Brackenbury Saunderson, Ltd. (376415). Regd. Oct. 1. Yorke-st., Mansfield Woodhouse, Notts. Bldrs., decorators, carriers, etc. Nom. cap.: £2,000.

Cast Concrete Products Association, Ltd. (376562). Regd. Oct. 9. 17, Amherst-rd., W.13. Nom. cap.: £5. Dirs. : N. F. Spence, Greystones, Croft, nr. Leicester. O. A. Aisher, Faygate, S. Godstone, Surrey.

Federation of Plastering Contractors, Ltd. (376541). Regd. Oct. 8. St. Stephen's House, Victoria Embankment, S.W.1. Council to be appointed by subs. Subs. : C. B. Richardson, 3, Thorton-grove, Hatch End, Mdx.; T. G. Bowler, 31, Ambleside-gdns., Wembley, Mdx.; C. W. Symonds, 29, Hollingbourne-gdns., W.3; J. N. Gordon, 28, Holland-av., Wimbledon, S.W.20; A. W. Rodford, 77, Grand-drive, Raynes Park, S.W.20; G. M. Street, 104, Shardeloes-rd., S.E.14; R. P. Bannister, 26, Mansel-rd., S.W.19.

J. W. Adams and Sons (Builders), Ltd. (376648). Regd. Oct. 14. 84, Douglas-rd., Surbiton, Surrey. Nom. cap. : £1,000. Dirs. : W. E. Adams and G. E. Adams.

J. W. Spencer, Ltd. (376624). Regd. Oct. 12. Bldrs., etc. Nom. cap. : £5,000. Dirs. : P. G. Spencer, 3, Thornbury Park-av., Plymouth, S. R. Grinter and E. C. Condy.

J. Farnell and Son (Builders), Ltd. (376622). Regd. Oct. 13. Nom. cap. : £5,000. Dirs. to be apptd. by subs. Subs. : J. H. Gray, 92, Leylands-la., Heaton, Bradford, R. Heseltine and G. Farnell.

C. and J. Knight, Ltd. (376573). Regd. Oct. 10. Bldrs., contractors, etc. Nom. cap.: £1,000. Dirs. : C. Knight, 40, Elm-rd., S.W.14, J. Knight, W. G. Simmonds and E. H. Abbott.

CONTRACTS OPEN

For some contracts still open, but not included in this list, see previous issues. Those with an asterisk are advertised in this number. The dates at the head of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained.

BUILDING.

NOVEMBER 30.

Manchester P.H.C.—Construction of nurseries at (1) Cheetham; (2) Wythenshawe. City Architect. Dep. £1 1s. each.

Woking U.D.C. Alterations and additions to village hall, Byfleet, for British Restaurant. P. Tame, A.M.Inst.C.E., E., and S. Dep. £2 2s.

DECEMBER 2.

Croydon B.C.—Constructional steel strengthening to public surface shelters. B. E. Dep. £1 1s.

Pudsey T.C.—Erection of sub-station. B. S.

DECEMBER 4.

***Coulsdon and Purley U.D.C.**—Erection of nursery, Old Coulsdon. S. Dep. £2 2s.

Erith B.C. — Alterations to A.R.P. Centre. J. H. Clayton, B. E. and S. Dep. £1 1s.

North Riding E.C.—Erection of prefabricated concrete building for central kitchen at Northallerton. F. Barraclough, Education Officer, County Hall, Northallerton.

St Albans T.C.—Erection of rest room. F. T. Negus, City E. and S., 38, St. Peter's-st. Dep. £1 1s.

DECEMBER 5.

Kerry Vocational E.C.—Erection and completion of technical school, Dingle. D. W. Quinlan, Chief Executive Officer, Courthouse, Tralee. Dep. £5 5s.

DECEMBER 7.

Bilston T.C.—Brick and concrete pumping station. A. V. Williams, T. C. Dep. £2.

Cambridge T.C. — Erection of sub fire-station. B. S.

Carlisle T.C.—Sub fire-station. City S., 138, Fisher-st.

Twickenham B.C.—Adaptation of hall at Hampton Wick as civic restaurant. B. E. Dep. £1 1s.

DECEMBER 8.

Scunthorpe T.C.—Erection of mess room and lavatory accommodation. W. Farrar, A.M.Inst.C.E., B. E. and S.

NO DATE.

Caernarvon War Agricultural Executive Committee. — Erection of brick and and asbestos sheds. E. J. Jones, Bryntysilio, St. David's-rd., Caernarvon. Dep. £2 2s.

PAINTING, ELECTRIC LIGHTING, HEATING, ETC.

DECEMBER 5.

Orpington U.D.C.—Internal redecoration to approx. 40 houses. T. Watson, E. and S.

DECEMBER 7.

Keighley E.C. — Painting work at various schools. E. G. Felgate, Boro. Architect, College-st. Dep. £1.

West Riding C.C.—Painting external steelwork at Scottish Banks sanatorium. West Riding Architect, County Hall, Wakefield.

ENGINEERING, IRON AND STEEL.

DECEMBER 12.

Burntisland T.C. — Excavating track and laying approx. 450 yds. of 4 in. spun iron water pipes. G. H. Rodger, B. S.

DECEMBER 31.

Merionethshire Rivers Catchment Board.—Construction of sea defence works and reconditioning of river embankments. R. R. Jones, Clerk to the Board, Tremeivion, Talsarnau, Merioneth. Dep. £3 3s.

ROAD, SEWERAGE AND WATER WORKS.

DECEMBER 4.

Southampton C.B.—Reconstruction of Manor Farm-rd. B. E. Dep. £1 1s.

NO DATE.

Cheltenham R.D.C. — Supply of materials for and construction of sewage disposal works, etc. J. H. Haiste, M.Inst.C.E., Consulting E., 22, Queen-sq., Woodhouse-la., Leeds 2. Dep. £2 2s.

PUBLIC APPOINTMENTS.

DECEMBER 2.

***Somerset C.C.**—Temporary post of Quantity Surveyor. R. O. Harris, County Architect, Park-st., Taunton.

DECEMBER 7.

Gravesend T.C.—General Assistant in B. S. dept. H. H. Brown, T. C.

DECEMBER 16.

***Middx. C.C.** — Full-time Assistant Master to teach Building Construction and Geometry or Carpentry and Joinery. Dr. E. Davies, Education Offices, 163, Willesden-la., N.W.6.

A.R.P. SCHEMES

LONDON.

Hampstead—Subject to M.H. approval B.C. to erect shelter at Woodchurch-rd. day nurseries at £398.

Southgate.—B.C. placed contract with A. Scott & Sons (London), Ltd., for erection of 7 incendiary bomb-practice huts at £54 10s. each.

PROVINCIAL.

Birkenhead. — T.C. accepted tender of Boulton's (Bebington), Ltd., at £1,774, for erection of civil defence gas decontamination unit.

Durham.—Tenders accepted by County P.A.C.: Shelters at Medomsley Cottage Homes, W. Taylor & Sons, Rowlands Gill, £508.

Felling-on-Tyne. — U.D.C. approved ambulance hut and first-aid post for Noble & Lund, Ltd.

Havant and Waterloo.—U.D.C. placed contracts with E. M. Hall, 18, Henley-rd., Southsea, for: (1) Construction of brick garages; (2) brick shelter at cleansing station; (3) brick shelter at first-aid post.

Hyde. — U.D.C. propose strengthening additional public and domestic communal shelters.

Ilkeston. — Derbyshire C.C. received approval of M.H. of plans for rescue and decontamination depot and report centre, at £11,750. Plans by J. Harrison, County Architect, County-bldgs., St. Mary's-gate, Derby.

Jarrow-on-Tyne. — Shelters to be built at Simonside. Plans by J. S. Weir, B.E.

Lancashire.—P.A.C. approved additional structural precautions and protection of institutions at Bury, Lancaster, Patricroft, Chorley and Ulverston, at £1,190 13s.

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Leicestershire.—C.C. approved scheme for civil defence accommodation at Coalville, at £4,500.

Northumberland.—E.C. to erect shelters at school at Warksworth. Plans by W. W. Tasker, County Hall, Newcastle-on-Tyne.

Nottingham. — Contract placed with Bodell & Sons, Ltd., Hucknall, at £3,966, for erection of fire station for N.F.S.

Peterborough.—T.C. received approval to provision of three auxiliary despatch posts, at £600.

Portadown.—U.D.C. accepted tender of J. Mills McCormick, 54A, Ashmore-st., Belfast, at £3,390, for erection of 14 public shelters. Plans by F. C. Millar, Town S.

Rochdale.—For alterations and repairs to existing premises and erection of garages for N.F.S., T.C. placed contract with Moston Brick & Building Co., Kenyon-la., Moston, Manchester 10.

OFFICIAL NOTIFICATIONS

Restriction on Transfer Order.

New directions have been issued by the Minister of Labour and National Service under the Building and Civil Engineering (Restriction on Transfer) Order, 1941, which adds to the range of exemption or restrictions laid down in the Regulation. A notable addition to the list of employees whose movement is restricted are "young persons actually engaged in building or civil engineering activities"—"young persons" meaning, broadly, boys and girls who have not reached their 18th birthday.

Copies of these new directions (E.D.L. 85, November, 1942) are obtainable from any Employment Exchange.

Purchase of Mobile Cranes.

As from January 1, 1943, the procedure for purchasing the following types of petrol or diesel driven mobile cranes will be altered and all previous Orders and authorisations made in respect of them will be cancelled. Mobile cranes on road wheels or crawler tracks; cranes mounted on road vehicles.

Steam cranes and cranes on rail wheels will not be affected by these alterations, and the present procedure for obtaining them will remain in force.

As from the above date all persons intending to purchase mobile cranes must obtain an authorisation from The Joint Secretary, Engineer Stores Assignment Working Committee, Room 616, Lambeth Bridge House, London, S.E.1. This applies to all users of mobile cranes including local authorities and public utility companies, irrespective of the purpose for which they are required. Application should be made to the Committee on Form X/ESA/MC/A obtainable from the address stated. Authorisation to purchase will be made by the Committee, and the purchaser will be notified acordingly. No "M" form will be required as the necessary allocations of steel will be made directly to the manufacturers by the Ministry of Supply.

Control of Iron and Steel.

The Minister of Supply has issued the Control of Iron and Steel (No. 26) Order, 1942, which came into force on November 24 and amends certain of the prices established under the Control of Iron and Steel (Nos. 15-20 and 22-23) Orders, 1941-2.

The amendments include an increase in price of 6 per cent. for general steel castings, but otherwise they are of a minor character.

In addition the Order establishes controlled maximum prices for certain iron and steel and allied materials hitherto not covered, notably special quality steels for special purposes, cemented carbide tool tips, medium plates rolled in a sheet mill, pit props and ferro molybdenum grinding powder.

Copies of the Order may be obtained from H.M. Stationery Office, York House, Kingsway, W.C.2, or through any bookseller (price 1d.).

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st FEBRUARY, 1942

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors]

	Crafts-men.	Lab-ourers.
Aberavon	1/11	1/6½
Aberdare	1/11	1/6½
Abergavenny	1/9½	1/5
Abingdon	1/11	1/6½
Accrington	1/7½	1/3½
Aldeburgh	1/9½	1/5
Aldershot	1/11	1/6½
Alfreton	1/10½	1/5½
Alnwick	1/11	1/6½
Altrincham	1/10½	1/5½
Amble	1/9½	1/5
Amersham	1/11	1/6½
Ammanford	1/9	1/4½
Andover	1/9	1/4½
Ardingly	1/9	1/4½
Arundel	1/9	1/4½
Ascot	1/11	1/6½
Ashby-de-la-Zouch	1/9	1/4½
Ashford (Kent)	1/11	1/6½
Ashford (Middlesex)	1/10½	1/5½
Ashington	1/11	1/6½
Ashtead	1/11	1/6½
Ashton-under-Lyne	1/9	1/4½
Aylesbury	1/8	1/4|
Aylsham	1/9	1/4½
Bagshot	1/9	1/3½
Banbury	1/11	1/6½
Barnsley	1/9	1/4½
Barnstaple	1/11	1/6½
Barrow-in-Furness	1/11	1/6½
Barry	1/9	1/4½
Basingstoke	1/10½	1/5½
Bath	1/11	1/6½
Batley	1/9½	1/5
Beaconsfield	1/7½	1/3½
Beccles	1/10½	1/5½
Bedford	1/9	1/4½
Berkhamsted	1/10½	1/5½
Berwick	1/11	1/6½
Beverley	1/9½	1/5
Bexhill-on-Sea	1/9	1/4½
Bideford	1/9	1/4½
Biggleswade	1/8½	1/4½
Billericay	1/9	1/4½
Birchington	‡£2/1	¶
Birkenhead	†1/11	1/6½
Birmingham	1/11	1/6½
Bishop Auckland	1/10	1/5½
Bishop's Stortford	1/11	1/6½
Blackburn	1/11	1/6½
Blackpool	1/11	1/6½
Blyth	1/9	1/4½
Bognor Regis	1/11	1/6½
Bolton	1/10	1/5½
Bournemouth	1/9	1/4½
Bracknell	1/11	1/6½
Bradford	1/8	1/4
Bradford-on-Avon	1/9	1/4½
Braintree	1/10½	1/5½
Brentwood	1/9½	1/5
Bridgwater	1/10½	1/5½
Bridlington	1/11	1/6½
Brighouse	1/10	1/5½
Brighton	1/11	1/6½
Bristol	1/9	1/4½
Broadstairs	1/10½	1/5½
Bromsgrove	1/11	1/6½
Buckley	1/7	1/3½
Bungay	1/7½	1/3½
Burnham-on-Crouch	1/11	1/6½
Burnley	1/11	1/6½
Burslem	1/11	1/6½
Burton-on-Trent	1/11	1/6½
Bury	1/8½	1/4½
Bury St. Edmunds	1/10½	1/5½
Buxton	1/9½	1/5
Byfleet	1/11	1/6½
Cambridge	1/9	1/4½
Canterbury	1/11	1/6½
Cardiff	1/11	1/6½
Carlisle	1/11	1/6½
Carnforth	1/11	1/6½
Castleford	1/11	1/6½
Caterham	1/8	1/4
Chard	1/10	1/5½
Chatham	1/10½	1/5½
Chelmsford	1/10	1/5½
Cheltenham	1/10½	1/5½
Chepstow	1/10	1/5½
Chertsey	1/11	1/6½
Chester	1/11	1/6½
Chesterfield	1/9	1/4½
Chichester	1/11	1/6½
Chorley	1/8½	1/4½
Cirencester	1/9	1/4½
Clacton	1/11	1/6½
Cleveleys	1/11	1/6½
Clitheroe	1/11	1/6½
Cobham (Surrey)	1/10	1/5½
Colchester	1/10½	1/5½
Colwyn Bay	1/10½	1/5½
Congleton	1/11	1/6½
Coventry	1/9	1/4½
Cranbrook	1/9	1/4½
Cranleigh	1/9	1/4½
Crawley	1/10½	1/5½
Crewe	1/8	1/4
Cromer	1/9	1/4½
Crowborough	1/9	1/4½
Cuckfield	1/11	1/6½
Darlington	1/11	1/6½
Darwen	1/9½	1/5
Daventry	1/9	1/4½
Deal	1/10	1/5½
Denbigh	1/11	1/6½
Derby	1/8	1/4
Devizes	1/11	1/6½
Dewsbury	1/9	1/4½
Didcot	1/7½	1/3½
Diss	1/11	1/6½
Doncaster	1/8½	1/5
Dorchester	1/9½	1/4½
Dorking	1/9	1/4½
Dover	1/9	1/4½
Dovercourt	1/9½	1/5
Driffield	1/10½	1/5½
Droitwich	1/11	1/6½
Dudley	1/9½	1/5
Dunstable	1/11	1/6½
Durham City	1/10	1/5½
Eastbourne	1/11	1/6½
E. Glam. (Mon. Val.)	1/9	1/4½
East Grinstead	1/9	1/4½
Edenbridge	1/8	1/4
Ely	1/11	1/6½
Epping	1/10½	1/5½
Exeter	1/9½	1/5
Exmouth	1/8	1/4
Fakenham	1/9½	1/5
Falmouth	1/10	1/5½
Fareham	1/9	1/4½
Faversham	1/10	1/5½
Felixstowe	1/9½	1/5
Filey	1/11	1/6½
Fleetwood	1/11	1/6½
Flint	1/9	1/4½
Folkestone	1/9	1/4½
Frinton-on-Sea	1/8	1/4
Frome	1/10	1/5½
Gainsborough	1/11	1/6½
Gateshead	1/10	1/5½
Gillingham (Kent)	1/11	1/6½
Glossop	1/10½	1/5½
Gloucester	1/9	1/4½
Godalming	1/11	1/6½
Goole	1/10½	1/5½
Gosport	1/10	1/5½
Grantham	1/10½	1/5½
Gravesend	1/9	1/4½
Great Yarmouth	1/11	1/6½
Grimsby	1/9	1/4½
Guildford	1/9½	1/5
Guilsborough	1/11	1/6½
Halifax	1/11	1/6½
Hanley	1/10	1/5½
Harpenden	1/11	1/6½
Harrogate	1/11	1/6½
Hartlepools	1/9	1/4½
Harwich	1/9	1/4½
Haslemere	1/9	1/4½
Hastings	1/10½	1/5½
Hatfield	1/9	1/4½
Haywards Heath	1/10½	1/5½
Hednesford	1/10	1/5½
Hemel Hempstead	1/9	1/4½
Henley-on-Thames	1/9	1/4½
Hereford	1/9	1/4½
Herne Bay	1/10½	1/5½
Hertford	1/11	1/6½
Heysham	1/10	1/5½
Hitchin	1/10½	1/5½
Hoddesdon	1/7½	1/3½
Holt (Norfolk)	1/9	1/4½
Horley	1/9	1/4½
Horsham	1/11	1/6½
Horwich	1/11	1/6½
Huddersfield	1/11	1/6½
Hull	1/8	1/4
Hunstanton	1/8½	1/4½
Huntingdon	1/9	1/4½
Ilfracombe	1/9½	1/5
Ingatestone	1/10½	1/5½
Ipswich	1/9	1 4½
Isle of Thanet	1/8½	1/4½
Isle of Wight	1/11	1/6½
Keighley	1/11	1/6½
Kenilworth	1/11	1/6½
Kettering	1/10½	1/5½
Kidderminster	1/9	1/4½
King's Lynn	1/11	1/6½
Kirkham	1/10½	1/5½
Knowle	1/11	1/6½
Lancaster	1/11	1/6½
Leamington	1/10	1/5½
Leatherhead	1/11	1/6½
Leeds	1/11	1/6½
Leicester	1/8	1/4
Leighton Buzzard	1/10	1/5½
Letchworth	1/9	1/4½
Lewes	1/10	1/5½
Lichfield	1/11	1/6½
Lincoln	1/9	1/4½
Littlehampton	‡£2/1	¶
Liverpool	1/10	1/5½
Llandudno	1/11	1/6½
Llanelly		
London—		
12m. radius	•2/0½	1/7½
12-15m. radius	•2/0	1/7
Long Eaton	1/11	1/6½
Longton	1/11	1/6½
Loughborough	1/9½	1/5
Louth	1/9	1/4½
Lowestoft	1/10½	1/5½
Luton	1/10½	1/5½
Macclesfield	1/10	1/5½
Maidenhead	1/9½	1/5
Maidstone	1/9½	1/5
Malvern	1/11	1/6½
Manchester	1/8	1/4
Manningtree	1/11	1/6½
Mansfield	1/8	1/4
March	1/9	1/4½
Margate	1/10	1/5½
Market Harborough	1/9½	1/5
Matlock	1/7½	1/3½
Melton Constable	1/10	1/5½
Melton Mowbray	1/11	1/6½
Merthyr	1/11	1/6½
Middlesbrough	1/11	1/6½
Middleton	1/10½	1/5½
Middlewich	1/9½	1/5
Milford Haven	1/11	1/6½
Morecambe	1/11	1/6½
Morley	1/8	1/4
Mundesley	1/10½	1/5½
Nantwich	1/11	1/6½
Nelson	1/10½	1/5½
Newark-on-Trent	1/9	1/4½
Newbury	1/11	1/6½
Newcastle-on-Tyne	1/11	1/6½
Newcastle-u.-Lyme	1/9	1/4½
New Forest	1/9	1/4½
Newmarket	1/11	1/6½
Newport, Mon.	1/9	1/4½
Newport Pagnell	1/11	1/6½
Northampton	1/11	1/6½
Norwich	1/11	1/6½
Nottingham	1/11	1/6½
Nuneaton	1/9½	1/5
Oakham	1/11	1/6½
Oldham	1/11	1/6½
Ormskirk	1/10½	1/5½
Oxford	1/9½	1/5
Oxted	1/10½	1/5½
Paignton	1/10½	1/5½
Peterborough	1/11	1/6½
Plymouth	1/11	1/6½
Pontefract	1/11	1/6½
Pontypridd	1/11	1/6½
Port Talbot	1/10½	1/5½
Portsmouth	1/11	1/6½
Preston	1/9	1/4½
Pulborough	1/9	1/4½
Ramsgate	1/10½	1/5½
Reading	1/10½	1/5½
Redditch	1/9½	1/5
Redhill	1/9½	1/5
Ripon	1/11	1/6½
Rochdale	1/10	1/5½
Rochester	1/11	1/6½
Rugby	1/10½	1/5½
St. Albans	1/11	1/6½
St. Helens	1/8½	1/4½
St. Neots	1/8	1/4
Saffron Walden	1/8½	1/4½
Salisbury City	1/10	1/5½
Salisbury Plain	1/9½	1/5
Sawbridgeworth		
Saxmundham	1/7½	1/3½
Scarborough	1/10½	1/5½
Scunthorpe	1/11	1/6½
Selby	1/11	1/6½
Sevenoaks	1/9	1/4½
Sheerness	1/11	1/6½
Sheffield	1/11	1/6½
Shipley	1/10½	1/5½
Shoeburyness	1/10	1/5½
Shoreham	1/10½	1/5½
Shrewsbury	1/9	1/4½
Sittingbourne	1/10	1/5½
Skegness	1/9½	1/5
Sleaford	1/10	1/5½
Slough	1/10½	1/5½
Southampton	1/10½	1/5½
Southend-on-Sea	1/11	1/6½
Southport	1/11	1/6½
South Shields	1/9	1/4½
Spalding	1/10½	1/5½
Stafford	1/10	1/5½
Staines	¶10	1/5½
Stamford	1/10	1/5½
Stevenage	1/11	1/6½
Stockport	1/11	1/6½
Stockton-on-Tees	1/11	1/6½
Stoke-on-Trent	1/11	1/6½
Stourbridge	1/10½	1/5½
Stourport	1/8	1/4
Stowmarket	1/10	1/5½
Stratford-on-Avon	1/10	1/5½
Stroud	1/11	1/6½
Sunderland	1/11	1/6½
Sutton Coldfield	1/7½	1/3½
Swaffham	1/9	1/4½
Swanage	1/11	1/6½
Swansea	1/9½	1/5
Swindon	1/10½	1/5½
Tamworth	1/9½	1/5
Taunton	1/9	1/4½
Tenterden	1/11	1/6½
Thames Haven	1/8½	1/4½
Thetford	1/10½	1/5½
Thorpe Bay	1/11	1/6½
Todmorden	1/9½	1/5
Tonbridge	1/10½	1/5½
Torquay	1/9	1/4½
Totnes	1/8	1/4
Trowbridge	1/8½	1/4½
Truro	1/9½	1/5
Tunbridge Wells	1/10½	1/5½
Uppingham	1/10	1/5½
Uttoxeter	1/11	1/6½
Wakefield	1/11	1/6½
Walsall	1/11	1/6½
Walsden	1/9	1/4½
Walton-on-Naze	1/10½	1/5½
Ware	1/8	1/4
Warminster	1/11	1/6½
Warrington	1/11	1/6½
Warwick	1/10½	1/5½
Wellington R.D.	1/10	1/5½
Welwyn	1/11	1/6½
Welwyn Gar. City	1/7½	1/3½
Wells (Norfolk)	1/11	1/6½
West Bromwich	1/10½	1/5½
Westcliff-on-Sea	1/10	1/5½
Weston-super-Mare	1/10	1/5½
Weybridge	1/9	1/4½
Weymouth	1/10	1/5½
Whitby	1/9	1/4½
Whitstable	1/11	1/6½
Widnes	1/11	1/6½
Wigan	1/9½	1/5
Wigton	1/11	1/6½
Willington	1/11	1/6½
Wilmslow	1/9½	1/5
Winchester	1/9½	1/5
Windermere	1/10	1/5½
Windsor	1/8½	1/4½
Wisbech	1/9	1/4½
Witham	1/9½	1/5
Woking	1/9	1/4½
Wokingham	1/11	1/6½
Wolverhampton	1/8½	1/4½
Woodbridge	1/10½	1/5½
Worcester	1/9½	1/5
Workington	1/10½	1/5½
Worksop	1/9	1/4½
Worthing	1/10½	1/5½
Wrexham	1/8½	1/4½
Wroxham	1/10	1/5½
Wycombe	1/8	1/4
Wymondham	1/9½	1/5
Yeovil	1/11	1/6½
York		

• Painters ½d. less than other Craftsmen. † Plus 2d. per working day. ‡ Plasterers 2/1½.

¶ Tradesman's Labourers, 1/7½. Navvies and General Labourers, 1/6½.

§ Joiners, Plumbers, Bricklayers, Tilers and Masons receive 2/- per week or 4d. per day Tool Money.

NOTE.—Carpenters and Joiners in all Towns and Districts (other than Birkenhead and Liverpool) receive 2d. per day Tool Allowance.

For Building Trade Wages in Scotland, see page 472.

PRICES CURRENT OF MATERIALS*

Note: Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry. The prices of soft woods are for cash on delivery. At present linseed oil and genuine spirits of turpentine can only be supplied in cans in small quantities.

BRICKS, &c.

	£ s. d
First Hard Stocks	4 13 0
Second Hard Stocks	4 6 0
Mild Stocks	3 13 0
Single Rough Stocks	3 7 0
Common Stocks	2 17 6

All loaded free into lorry at the works. The question of haulage is still very difficult and prices must be obtained from job to job. *In addition*, there will be the Levy under the Bricks (Charges) Order, 1942, of 3s. per 1,000.

2½ in. Phorpres. A discount of 6d. 1,000 only monthly account.	King's Cross Station per 1,000 s. d.	To sites in W.C. District per 1,000 s. d.
Pressed	56 9	63 3
Keyed	58 9	65 3
Single Bullnose	76 9	83 3
Rustics	76 9	83 3
Whites	77 3	83 3

	£ s. d.
White Midhurst Best selected (delivered London site)	5 10 0
Best blue Pressed Staffs. (London Stns.)	11 12 0
Do. Bullnose (London Stns.)	12 2 0
Blue Wire Cuts (London Stns.)	10 9 6

Best Stourbridge Fire Brick (London Stns.) :—

£ s. d.		£ s. d.
2½ in. 10 0 0	3 in.	12 0 0

GLAZED BRICKS. (London Stns.)

Best White Ivory and Salt Glazed Stretcher	30 0 0	D'ble Str'tch'rs D'ble Headers One side&two ends	38 10 0 35 10 0 39 10 0
Headers	29 10 0	Two sides&one end	40 10 0
Quoins, Bullnose and 4½ in. Flats	36 10 0	Splays and Squints	38 0 0

Second Quality, £2 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

ADD LEVY ON BRICKS, 3/- per 1,000 except Glazed Bricks.

PARTITION SLABS.

Delivered on site London Area.

"PHORPRES" HOLLOW PARTITION BLOCKS.

	s. d.		s. d.
2" per yd. sup.	2 8	3" per yd. sup.	3 6
2½ " "	2 11	4" " "	3 10

CLINKER CONCRETE.

2" per yd. sup.	1 11	3" per yd. sup.	2 6
2½ " "	2 3	4" " "	3 6

CRANHAM TERRA COTTA.

Size 12 x 9 x 2" per yd. super	2 8
Size 12 x 9 x 2½ " "	2 11
Size 12 x 9 x 3" " "	3 6
Size 12 x 9 x 4" " "	3 10

HEMPSTEAD—KEYED TWO SIDES.

12" x 9" x 2"	2 8	12" x 9" x 3"	3 6
12" x 9" x 2½"	2 11	12" x 9" x 4"	3 10

Per yard super d/d. Free on site, London.

Plus 2d. for smooth one side, and 4d. for smooth both sides.

STONE.

BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube — s. d. 3 3½

BEER STONE—RANDOM BLOCK—
Free on rail at Seaton Station.. per ft cube 2 3
Delivered free on rail Nine Elms, S.R. " 3 1½
Selected approximate size one way, 1d. per cubic ft. extra, selected approximately three sizes or for special work, 3d. per cubic ft. extra.

PORTLAND STONE—
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., ... per ft. cube 4 7
Do. do. delivered on road waggons as above stations ..... per ft. cube 4 7
White basebed, 3d. per ft. cube extra.
NOTE.—1d. per ft. cube extra for every ft. over 20 ft. *average* and ½d. beyond 30 ft.

HOPTON-WOOD STONE—

	s. d.
F.O.R. Quarries, Wirksworth, Derbyshire, Random blocks from 10 ft. and over P.ft.cb.	13 2
Sawn two sides	26 11
Sawn three or four sides	31 11

YORK STONE, BLUE—*Robin Hood Quality.*
Delivered at any Goods Station, London.

6 in. sawn two sides landings to sizes (under 30 ft. super)	per ft. super	5 6
6 in. rubbed two sides, ditto	"	6 3
3 in. sawn two sides slabs (random sizes)	"	2 7
2 in. to 2½ in. sawn one side slabs (random sizes) (paving)	"	1 8½
1¼ in. to 2 in. ditto	"	1 4½

HARD YORK—
Delivered at any Goods Station, London.

Scrappled random blocks	per ft. cube	6 10
6 in. sawn two sides landings to sizes (under 40 ft. super)	per ft.super	5 7½
6 in. rubbed two sides, ditto	"	6 9
4 in. sawn two sides slabs (random sizes)	"	3 5
3 in. ditto ditto	"	2 8
2 in. self-faced random flags	per yd. super	8 9

CAST STONE.

Delivered in London area in full van loads, per ft. cube: Plain, 7s. 6d. Moulded, 8s. 6d. Small section cills and copings, 11s.

SAND.

Thames Ballast	10s. 0d. per yd.	delivered 2 miles radius Paddington.
Pit Ballast	9s. 6d. " "	
Pit Sand	12s. 0d. " "	
Washed Sand	13s. 0d. " "	
¾ in. Shingle	10s. 6d. " "	
¾ in. Broken Brick	16s. 0d. " "	
Pan Breeze	10s. 0d. " "	

CEMENT.

Best British Portland Cement. Standard Specification, delivered London area. £ s. d.

6 ton loads and upwards site	per ton	2 11 0
1 ton to 6 tons site		2 14 0
Alongside Vauxhall in 80 ton lots		2 8 6
"Ferrocrete" Rapid Hardening Cement—		
6 ton loads and upwards site		2 17 0
1 ton to 6 tons site		3 0 0
Alongside Vauxhall in 80 ton lots		2 14 6

"Aquacrete" Water Repellent, "Blue Circle" cement, 30s. per ton on ordinary "Blue Circle" prices.
"Colorcrete" Nos. 1 and 2. Coloured rapid Hardening Portland Cement in 6 ton lots .. 4 11 0
"Colorcrete" not rapid hardening, according to colour, from £7 to £15 10s. per ton.
"Snowcrete" White Portland Cement (in free paper bags) 10 5 0
"417" Cement (Ultra Rapid Hardening) Delivered Site London Area in 6 tons lots and upwards 3 11 0
Plus packages at current prices.
Super Cement (Waterproof), bags extra 4 1 0
NOTE.—Jute sacks charged at 35s. 6d. nett per ton (20 sacks) for quantities of or exceeding one ton.
Less than one ton 1s. 9½d. nett each.
Credit 1s. 6d. nett each when returned in good condition within two weeks.

	£ s. d.		£ s. d.
Romance cement	8 10 0	Keene's Cement, White	7 0 0
Parian Cement	7 0 0	" " Pink	6 10 0

Cemen tone Colours for cement according to tints per cwt. from £3 5s. 0d.

SLATES.

First quality slates from Penrhyn or Portmadoc, carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12	45 5 0	18 by 10	24 0 0
22 by 12	37 17 6	18 by 9	22 12 6
22 by 11	34 2 6	16 by 10	21 10 0
20 by 12	33 0 0	16 by 8	16 12 6
20 by 10	30 5 0		

PLASTER.

	£ s. d.		£ s. d.
Coarse, Pink	4 0 0	Sirapite, Coarse	4 5 6
" White	4 7 6	" Finish	4 13 6
Pioneer	4 5 0		

Above prices for 4-ton loads and over London Area.

Best Ground Blue		Grey Stone Lime	2 17 6
Lias Lime	3 7 6	Chalk Lime	2 17 6
Granite Chippings	1 15 0	Hair per cwt.	3 5 0

NOTE.—Sacks are charged 1s. 9d. each, and credited 1s. 6d. if returned in good condition within three months, carriage paid.
Stourbridge Fireclay in paper bags, £2 12s. 6d. in 6-ton lots at railway depot.

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons..... Per 1,000 f.o.r. London.

Best machine-made tiles from Broseley or Staffordshire district	£5 15 0
Ditto hand-made ditto	6 18 6
Ornamental ditto	7 5 0
Hip and valley tiles (per dozen) Hand-made	0 14 0
Hip and valley tiles (per dozen) Machine-made	0 13 6

HARD WOOD.

1 INCH AND UP THICK.

Average price for prime quality.	s. d.		Foot cube. £ s. d.
Dry English Wainscot Billets..	16 0	to	0 18 0
Dry Slavonian Billet Wainscot ..	17 0	to	1 0 0
Dry Cuba Mahogany logs	21 0	to	1 4 0
Square-edged Honduras Mahogany			0 16 6
Log Cut Honduras Mahogany			0 17 6
American Figured Oak			0 13 0
American Plain Oak			0 12 6
Jap. Figured Oak			0 13 0
Jap. Plain Oak			0 12 6
Teak			0 15 6
American Whitewood			0 12
African Whitewood			0 8 0
African Mahogany			0 11 0
Australian Walnut			0 19 0
Australian Silky Oak			0 12 6

Best Scotch glue	per cwt.	5 0 0
Liquid glue	per gallon	1 2 0

SOFT WOOD.

MERCHANTABLE BRITISH COLUMBIAN PINE	Minimum. £ s. d.	Maximum. £ s. d.
Scantlings in imported sizes, 2 in. by 3 in. to 4 in. by 11 in.	43 10 0	53 0 0

PLANED BOARDS.
PRIME CLEAR BRITISH COLUMBIAN PINE.

	Per standard. £ s. d.
1 in. by 11 in. } 1 in. by 9 in. }	67 10 0

	Per square. s. d.
1 in. plain edge flooring	53 0
1¼ in. ditto	66 6
1 in. tongued and grooved	53 0
1¼ in. ditto	66 6

MATCHING. Per square.

	s. d.
¾ in.	37 6
¾ in.	42 0
1 in.	55 0

PLUMBERS' BRASS WORK.

Delivered in London.
M.O.H.
S.D. BIBCOCKS, CRUTCH HEAD, FOR IRON.
½ in. ¾-in.
30/- 44/6 per doz.
TOILET BIB COCKS FOR IRON.
½ in. ¾ in.
42/- 60/- per doz
S.D. STOP COCKS FOR IRON.
½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
29/6 45/- 81/6 195/- 272/- 453/- per doz.
S.D.S. COCKS WITH TWO UNIONS FOR LEAD.
½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
45/- 77/6 123/- 240/- 372/- 624/- per doz.
DOUBLE NUT BOILER SCREWS.
½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
5/6 6/8 11/- 24/- 36/- 56/- per doz.
HEAVY CROYDON BALL VALVES.
½ in. ¾ in. 1 in. 1¼ in. 1½ in.
36/- 65/- 98/- 195/- 264/- per doz.
CAPS AND SCREWS.
1¼ in. 1½ in. 2 in. 3 in. 3½ in. 4 in.
11/9 14/5 21/6 37/9 54/- 59/6 per doz.
BRASS SLEEVES.
1½ in. 2 in. 3 in. 3½ in. 4 in.
10/9 13/6 25/- 37/- 46/- per doz.
LEAD TRAPS WITH BRASS CLEANING SCREWS.

	1½×6 lbs.	1½×6 lbs.	2×7 lbs.	3×7 lbs.
Lead P.	26/-	34/-	55/-	92/- per doz.
Lead S.	34/-	41/-	67/	115/- per doz.

SOLDER.—Plumbers', 1/5; Tinmen's, 1/9. Blow pipe, 2/- per lb.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, no. necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information. Prices are subject to 2½ per cent. cash discount.

PRICES CURRENT OF MATERIALS—(*contd.*)

METALS.

JOISTS, GIRDERS, &C., to LONDON STATION PER TON—

	£ s. d.
R.S. Joists, cut and fitted	£23 10 0
Plain Compound Girders	26 0 0
Stanchions	28 10 0
In Roof Work	33 10 0

NOTE.—These prices are for standard pieces and not special pieces of an awkward nature.

MILD STEEL ROUNDS.—To London Stations, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	23 0 0	⅜ in. to ½ in.	21 10 0
⅝ in.	22 0 0	⅝ in. to 2½ in.	21 0 0

WROUGHT TUBES AND FITTINGS.
Deliveries from works.
Deliveries from London stock further 2½ % gross.

10/17

	Tubes. ½"/6" %	Tubulars. and ¼"/6" %	19/24 %	Flanges. ¼"/2" %	2½"/6" %
Light weight	51½	—	47½	51	57½
Heavy weight	44	44	39½	41	49½
Galv.lightweight	40½	—	38½	39½	48½
Galv.heavyweight	31	31	31	29½	41

Tubes and tubulars sizes ¼"/⅛" inclusive, charged extra of 5% less gross.
Fittings. Figs. 25/34 5% less gross discount.

Terms.—Nett cash end of month following date of invoice. Carriage paid on lots of £10 nett value and over.

C.I. HALF-ROUND GUTTERS—London Prices ex Works. per yd. in 6 ft. lengths.

	Gutters.	Nozzles.	Stop ends.
3 in.	1/5½	1/2½	4½d.
3½ in.	1/7	1/4	4½d.
4 in.	1/7	1/6	6½d.
4½ in.	1/8½	1/8½	7½d.
5 in.	2/0½	2/0	9d.

O.G. GUTTERS.

3 in.	1/10½	1/7½	5d.
3½ in.	2/1½	1/7½	6½d.
4 in.	2/1½	1/8½	7½d.
4½ in.	2/2½	1/11½	8½d.
5 in.	2/8½	2/3	10½d.

RAIN WATER PIPES.

Per yd. in 6 fts.	Pipe	Bends. Stock angles.	Branches.
2 in.	2/2½	1/5½	2/2
2½ in.	2/3½	1/8½	2/7½
3 in.	2/8½	2/1½	3/2
3½ in.	3/2½	2/6½	3/7½
4 in.	3/8½	3/0½	4/5

NETT PRICES.
Tonnage allowance—4-ton lots, 5 per cent.
2-ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES—London Prices, ex Stock.

Per yd. in 6 fts.	Pipe.	Bends.	Branches.
2 in.	3/9½	2/7½	3/2
2½ in.	4/5	2/10½	3/11½
3 in.	4/9	3/2	4/8½
3½ in.	4/10½	3/11½	5/5½
4 in.	5/3½	4/5	6/3½

L.C.C. COATED DRAIN PIPE.

	Pipe.	Bends.	Branches.
3 in. per yd. in 9 fts.	5/5	6/3	9/11
cwt. qr. lbs.			
4 in. 1 1 20	7/11	7/1	12/6
5 in. 1 2 22	9/7	12/9	19/3
6 in. 2 0 6	11/5	14/8	25/6

Gaskin, 75/- per cwt.

	Per ton basis in London. £ s. d.
IRON.—Staffordshire Crown, Merchant quality	18 7 6
IRON.—Staffordshire Marked Bars	19 7 6
Mild Steel Bars	19 15 0
Mild Steel Hoops	21 10 0

	Ex Merchant's Stock, per ton (two-ton lots).
Soft Steel Sheets, C.R. and C.A.—	
20 gauge	24 17 6
24 gauge	25 2 6
26 gauge	25 17 6
Galvanised Corrugated Sheets, 6 ft. to 9 ft.	
20 gauge	27 0 0
24 gauge	27 10 0
26 gauge	28 15 0
Galvanised Flat Sheets, C.R. and C.A.—	
20 gauge	28 10 0
24 gauge	29 0 0
26 gauge	30 5 0

	Per ton. £ s. d.
Cut Nails, 3 in. and up	28 10 0

ALL NETT.

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 2s. 4d. to 2s. 7d. per foot super.

PAINTS, &c.

	£ s. d.
Raw Linseed Oil (5 galls.) .. per gallon	0 5 9
Boiled Linseed Oil (5 galls.) .. "	0 6 0
Genuine Ground English White Lead, per cwt.	3 11 3
Genuine White Lead Paint, 14 lb. tins free, per cwt.	4 15 6
Genuine Red Lead. "	2 18 0
Linseed Oil Putty (Kegs extra) .. "	1 3 3
Size. XD quality .. fkn.	0 4 9

Turpentine substitute can be obtained and prices vary according to quality from 3/8 gallon upwards.

	£ s. d.
SNOWCEM CEMENT PAINT .. per cwt.	2 16 0
C.M.C. CAMOUFLAGE PAINT .. "	2 16 0

BUILDING TRADE WAGES IN SCOTLAND

Following are grade rates authorised by the Scottish N.J.C. from October 1. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classification	A	A1	A2	A3	B	B1
Craftsmen	1/11½	1/11	1/10½	1/10	1/9½	1/9
Labourers	1/6	1/5½	1/5½	1/5	1/4½	1/4½

Aberdeen	A	Dumfriesshire	A2	Inverness	*	Perthshire	A2
Ayrshire	A	Dundee	A	Inverurie	A1	Peterhead	A
Banff	B	Dunoon	A	Kincardineshire	A2	Renfrewshire	A
Berwickshire	A2	East Fife	A	Kinross-shire	A	Rothesay	A
Bridge of Allan	A	East Lothian	A	Lanarkshire	A	Roxburghshire	A2
Broughty Ferry	A	Edinburgh	A	Midlothian	A	St. Andrews	A
Clackmannanshire	A	Fifeshire	A	Monifieth	A	Selkirkshire	A2
Doune	A	Forfarshire	A2	Moray and Nairn	B	Stewartry	A2
Dunblane	A	Glasgow	A	Newport	A	Stirlingshire	A
Dumbartonshire	A	Greenock	A	Peeblesshire	A2	Stornoway	A2
Dumfries	A1	Hamilton	A	Perth	A	Tayport	A
						West Lothian	A

*This town has its own rates : Masons, 1/8½ ; Carpenters, 1/8½ ; Slaters, 1/8½ ; Plumbers, 1/9 ; Plasterers, 1/9½ but 1/10 is paid owing to the scarcity at present ; Painters, 1/8½ and Labourers, 1/4

The information given in this table is copyright. Rates of wages in England and Wales are given on page 470

VARNISHES, &c.

		Per gallon. £ s. d.
Oak Varnish	Outside	0 16 0
Fine do.	"	0 18 0
Fine Copal	"	1 0 0
Pale Copal	"	1 2 0
Pale Opal Carriage	"	1 6 0
Best do. do.	"	1 14 0
Floor Varnish	Inside	1 0 0
Fine Pale Paper	"	1 0 0
Fine Copal Cabinet	"	1 4 0
Fine Copal Flatting	"	1 2 6
Hard Drying Oak	"	1 0 0
Fine Hard Drying Oak	"	1 1 6
Fine Copal Varnish	"	1 2 6
Pale do.	"	1 14 0
Best do.	"	1 4 6
Best Japan Gold Size	"	1 14 6
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 14 0
Brunswick Black		0 9 6
Berlin Black		0 16 0
Knotting (patent)		0 17 0
French and Brush Polish		0 14 0
Liquid Dryers in Terebene		0 11 0
Cuirass Black Enamel		0 9 0

LEAD, &c.

	Per ton. £ s. d.
(Delivered in London.)	
LEAD.—Sheet, English, 4 lb. and up	38 0 0
Pipe in coils	38 10 0
Soil pipe	42 10 0
Compo pipe	47 10 0

NOTE.—Country delivery, 20/- per ton extra, lots under 3 cwt. 4/- per cwt. extra and over 3 cwt. and under 5 cwt., 2/6 per cwt. extra. Cut to sizes, 4/- per cwt. extra.

Old lead, ex London area, at Mills ..... per ton } £18 0 0.

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THE SCOTTISH BUILDER

NEW BUILDING

GLASGOW.—Plans prepared for alterations and extensions to central police station, at £2,500, for which the architect is Mr. Thomas Somers, Municipal-bldgs. —Police Department to erect police riding-school.

An Appointment.

MR. WILLIAM R. WATT has been appointed county architect of Lanarkshire in succession to Mr. John Stewart, to whom he has been chief assistant.

W.D. Repairs, York and Kensington.

The War Damage Commission have brought parts of the County Borough of York and the Royal Borough of Kensington under Section 7 (2) of the War Damage Act, 1941.

GLASS.

SHEET GLASS, ORDINARY GLAZING QUALITY CUT SIZES.

	Per ft. super. d.
18 oz.	3½
24 oz. Clear or "R" quality	4½
26 oz.	5½
32 oz.	7½

ENGLISH ROLLED PLATE AND FIGURED CATHEDRAL, ETC., IN CUT SIZES.

Over 500 ft. super of all kinds.	Per ft. d.
Rolled plate, ¼ in.	5½
Rough cast double rolled, ⅛ in.	6½
Rough cast double rolled, ¼ in.	6½
Figured rolled, and Cathedral, white	6½
Figured rolled and Cathedral, tinted	9½
Rolled Sheet	&c.
Reeded, Broad Reeded, Cross Reeded and Chevron Reeded, ¼ in. thick	10½

Rolled plate is the same price as rough cast double rolled

	Per ft. s. d.
Wire Rolled, ¼ in. thick	0 9½
Wire Cast, ¼ in. thick	0 9½
Georgian Wired Cast	0 10
"Calorex" Sheet, 21 oz.	2 6
" " 32 oz.	4 0
" Cast, ⅛ in. thick	0 10
" " ⅜ in. thick	1 0
" " ¼ in. thick	1 2
Non Actinic Glass, ¼ in. thick	0 9½
" " " ⅜ in. thick	1 0
" " " ¼ in. thick	1 2

"VITA" GLASS.

	Per ft. s. d.
"Vita" Plate Glass, about ⅛ in. thick—	
To 7 ft. super	5 0
Over 7 ft. super	7 6
"Vita" Sheet Glass, about 18/20 oz.	2 0
Cathedral "Vita" Glass :	
¼ in. thickness	2 0
⅜ in. "	3 0
⅛ in. Georgian Wired "Vita" Glass	3 6

GLASS BRICKS.

	s. d.
P.B. 1—8 in. × 4⅞ in. × 3⅛ in. ..	2 9 each nett
P.B. 2—5½ in. × 5½ in. × 3⅛ in. ..	2 6 "
P.B. 3—7½ in. × 7½ in. × 3⅛ in. ..	3 6 "
P.B. 32—7¾ in. × 7¾ in. × 3⅛ in. ..	3 6 "

Radiused Corner Bricks to match up with—

P.B. 2	4 6	each nett
P.B. 3	6 0	"
P.B. 32	6 0	"

CURRENT AND PROPOSED NEW BUILDINGS

Conisborough.—West Riding C.C. propose day nursery at junction of Churchrd. and Wadsworth-st.

Darlington.—B.E. prepared plans for two nurseries at Albert Hill recreation ground and South Park.

Durham.—Nursery to be built at Cornforth. Plans by G. B. Clayton, Shire Hall, Durham.

Gateshead.—Couves & Partners, Carliol House, Newcastle-on-Tyne, are architects for extensions to factory.—Extensions to be made to factory. Plans by Hetherington & Wilson, County-chbrs., Newcastle-on-Tyne.

Hyde.—Committee of British Legion Club propose new headquarters. T. H. Higson, B.S., is honorary architect.

Kent.—C.C. approved £2,000 improvements for nurses' accommodation as County Hospital, Farnborough.—Hut at Crayford, Slade Green, as youth centre, £1,200.—Hut at Eythorne, Elvington, Dover, as youth centre, £1,200.—New building at Maidstone Grammar School for Girls, £1,425.

Lancashire.—P.A.C. propose: Alterations to sluice rooms and lavatories at Moorlands institution, Haslingden; alterations at Whiston institution; reconstruction of roof and front wall at Leigh institution. Plans by L. Evans, County Architect, County Offices, Preston.

Manchester.—T.C. approved: Works extensions, J. S. A. Young, architect, "Moresby," Prestwich Park, South Prestwich; additions to bakery, Newton Heath, for W. Scholes; conversion of premises into showroom and offices, Roberts, Wood & Elder, architects, 26, King-st.; J. C. McBeath, 2, Montague-rd., Sale, Ches, is architect for repair shop, garage and store.

Mexborough.—Board of Management of Montagu Hospital, Adwick-rd., propose extensions.

Stockton-on-Tees.—G. P. Stainsby, 25, High-st., Stockton, prepared plans for garage.

Urmston.—U.D.C. approved: Day nursery, junction of Davyhulme-rd. and Hayeswater-rd., Davyhulme, for Lancashire C.C.

West Riding.—C.C. propose erection of five additional day nurseries on selected sites.

BRITISH RESTAURANTS AND CANTEENS

Alveley. — Shropshire E.C. received approval for adapting part of school as canteen kitchen. Plans by A. G. Chant (F.), County Architect, 5, Belmont, Shrewsbury.

Ashington.—U.D.C. to adapt telephone exchange as B.R. Plans by B. Preston, 8.

Billingham-on-Tees.—U.D.C. S. to prepare plans for alternative B.R.

Bishopbriggs.—Miners' Welfare Commission, Carlton-pl., Clydeside, Glasgow, to erect canteen at a colliery.

Felling-on-Tyne. — U.D.C. to provide B.R. at Pelaw.

Guisborough.—Dining centre to be erected at £2,400. Plans by J. W. White, County architect, County Hall, Northallerton.

Kent.—C.C. propose following works: Meals accommodation at Beckenham County School for Girls, £1,000; canteen at Simon Langton Boys' School, Canterbury, £700; canteen at Dartford County Tech. Coll., £1,600; premises and adaptation as dining accommodation, Erith Tech. Coll., £2,250; canteen improvement, Eltham College, £750; dining accommodation, Sittingbourne County School for Girls, £1,050; canteen improvement, Judd School, Tonbridge, £1,800.

Leicestershire.—C.C. approved emergency cooking depot at Mountsorrel, at £2,000.

Littleborough.—U.D.C. propose adaptation of Methodist chapel, Church-st., as B.R.

Llangefni.—U.D.C. proposes B.R.

Newcastle-on-Tyne.—E.C. to set up canteens in various schools. Plans by F. Harvey, Education Offices, Northumberland-rd., Newcastle-on-Tyne.

Montgomery. — Montgomeryshire C.C. propose adaptation of Presbyterian church as central cooking depot.

North Riding.—E.C. approved plans for central kitchen at Northallerton, at £2,355. Plans by J. W. White, County Hall, Northallerton.—E.C. approved schemes for central kitchens at Kirby-moorside and Helmsley.

South Bromsgrove. — Worcestershire E.C. propose central cooking depot, at £2,210. Plans by H. Rowe & Son, County Architects, 38, Foregate-st., Worcester.

Stockton-on-Tees.—Extensions proposed to Bath-la. central kitchen, for E.C. Plans by A. S. Knolles, B.E.

TENDERS

The Editor welcomes authentic information for this feature from architects, surveyors or contractors. Items should reach 4, Catherine-street, Aldwych, W.C.2, not later than Tuesday morning.

Tenders for A.R.P. work will be found under "A.R.P. Schemes."

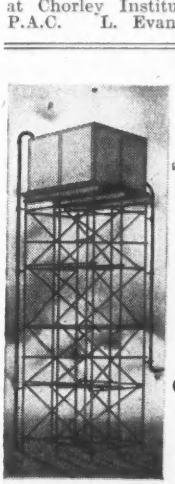
* Denotes *accepted.*
† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modification.*
¶ Denotes *accepted by H.M. Government departments.*

Atherton. — Erection of verandah to B.R. at Gag-la., for U.D.C. F. Boydell, S.: *Staveley's, Ltd., North-rd., Atherton, Manchester.

Bromsgrove.—Erection of buildings, for N.F.S. J. E. Seabright (A.), 1, Corbett-av., Droitwich, architect:—

C. A. Horton, Ltd., Brierley Hill, Staffs	£2,806
J. & A. Brazier, Ltd., Worcester-rd., Bromsgrove	1,965
Midland Building Institution, Ltd., Birmingham	1,839
Rexford (Builders), Ltd., Birmingham	1,803
J. Mannon & Co., Ltd., Birmingham	1,803
†William Weaver, Ltd., The Strand, Bromsgrove	1,726

Chorley.—Alterations to maternity unit, at Chorley Institution, for Lancashire P.A.C. L. Evans, County Architect.



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County-bldgs., Preston: *S. Gartside & Sons, 5, Queen's-rd., Chorley.

Darlington.—Works extensions: *Sir W. Arrol & Co., Ltd., Glasgow.

Darlington.—Annexe to office: *Bussey & Armstrong, Brinkburn-rd., Darlington.

Durham.—Works canteen: *G. Gradon & Sons, North-rd., Durham.

Glasgow. — Garage, etc. Mr. Thomas Somers, architect, Municipal-bldgs. Excavation, brick and mason works, etc.: *Charles Gray & Sons, Ltd., Glasgow, £884.

Halifax.—Erection and equipment for canteen kitchen at Shibden Park, for T.C. D. T. Lloyd Jones, B.S.: *H. Baxendale & Sons, Shay-la., Ovenden, Halifax. *T. Boocock & Sons, Mount-st., Halifax.

Johnstone. — B.R. William Mitchell, architect, Municipal-bldgs. Johnstone Excavation, brick and mason works, etc.: *James Y. Keenie & Co., Ltd. Johnstone, £1,252.

¶London (Air Ministry).—Contracts placed to value of £500 or over for week ended November 21.

Structural steelwork: Redpath Brown & Co., Ltd., Glasgow; Robert Watson & Co., Ltd., Bolton; Donald Clark & Son, Ltd., Glasgow; Teeside Bridge & Engineering Co., Ltd., Middlesbrough.

General maintenance work: John Shirlaw, Carluke, Lanarkshire; Edwin Marshall & Sons, Ltd., Ashton-under-Lyne; Coulson & Son, Ltd., Cambridge; Gibbard & Ingram, Winslow, Bucks; John Shewan, Pitsligo, Aberdeenshire.

Civil enginering work: Constable Hart & Co., Ltd., London S.W.1; A. M. Carmichael, Ltd., Edinburgh; Stewart McIntyre & Co., Ltd., Edinburgh; Wm. Lind & Co., Ltd., Elderslie, Renfrewshire.

Building work: Sir A. McAlpine & Son, Ltd., Hoofon, Ches; John Howard & Co., Ltd., Belfast, N. Ireland; Benfield & Loxley, Ltd., Oxford; John Mowlem & Co., Ltd., London, S.W.1; C. H. Chaston & Co., Ltd., Hoddesdon, Herts; W. E. Chivers & Sons, Ltd., Devizes, Wilts.

¶London (Ministry of Works). — Works contracts placed by M.O.W.P. during week ending November 19:—

London: Bldg. work, J. P. Williams, Ltd., 87, Lancaster-rd., Notting Hill.

Ayrshire: Electrical work, Anderson & Munro, Ltd., 196, Bath-st., Glasgow.

Ches: Bldg. work, Unit Construction Co., Ltd., 44, West-st., Reigate; htg. & H.W.S., The Brightside Foundry Engr. Co., Ltd., Bonehill House, Nr. Tamworth, Staffs.

Devonshire: Building work, Stephens & Son (1941), Ltd., Exeter.

Dorsetshire: Htg. & H.W.S., Young, Austen & Young, Ltd., Hinton-bldgs., Hinton-rd., Bournemouth.

Flintshire: Htg. & H.W.S., The Fretwell Heating Co., Ltd., Sussex Cottage, The Mount, Leatherhead; Matthew Hall & Co., Ltd., 26-28, Dorset-sq., N.W.1.

Glos: Htg. & H.W.S., Z. D. Berry & Sons, Ltd., 25, Stanley-st., Warrington; bldg. work, G. Wimpey & Co., Ltd., Denham, Middx; C. A. Hayes & Sons, Ltd., Bristol; electrical work, Etna Lighting & Heating Co., Ltd., 293-295, Broad-st., Birmingham; G. N. Haden & Sons, Ltd., 19-29, Woburn-pl., London, W.C.2; T. Clarke & Co., Ltd., 129, Sloane-st., S.W.1.

Hampshire: Htg. & H.W.S., C. S. Thompson (Letchworth), Ltd., Commerce-av., Letchworth.

Hereford: Htg. & H.W.S., Z. D. Berry & Sons, Ltd., 25, Stanley-st., Warrington; bldg. work, Geo. Wimpey & Co., Ltd., Denham, Middx; John Cochrane & Sons, Ltd., 39, Victoria-st., S.W.

Middx: Bldg. work, Sloggets, Hampton Hill, Middx; decorations, Curton (Stanmore), Ltd., Edgwarebury-la., Edgware; painting work, Limpus & Sons, Ltd., 67, Victoria-rd., Surbiton.

Northumberland. — Electrical work Barkers Electric Service, Ltd., 84, West-st., Gateshead; htg. & H.W.S., The Brightside Foundry & Engr. Co., Ltd., 8, Oxford-st., Newcastle-on-Tyne.

Shropshire: Htg. & H.W.S., William Freer, Ltd., 36, Wellington-st., Leicester; Z. D. Berry & Sons, Ltd., Palace-chbrs., Silver-st., Doncaster; electrical work, Thomas Wood & Son (Chester), Ltd.,

Bridge-st., Chester; T. Clarke & Co., Ltd., 129, Sloane-st., S.W.1; The Etna Lighting & Heating Co., Ltd., 293, Broad-st., Birmingham; bldg. work, Kirk & Kirk, Ltd., Atlas Works, S.W.15.

Staffs: Bldg. work, George Stubbings, Ltd., Birmingham.

Suffolk: Htg. & H.W.S., Z. D. Berry & Sons, Ltd., Palace-chbrs., Silver-st., Doncaster; bldg. work, Holloway Bros. (London), Ltd., Wimbledon, London.

Warwickshire: Htg. & H.W.S., Edgar Toon, Ltd., Mountrath-st., Walsall; F. Evans & Son, Ltd., 10-12, Gas-st., Birmingham.

Wilts: Htg. & H.W.S., Ellis (Kensington), Ltd., 9-10, Kendrick-pl., S.W.7.; C. S. Thompson (Letchworth), Ltd., Commerce-av., Letchworth; bldg. work, J. L. Kier & Co., Ltd., 9, Leopold-rd., S.W.19; Spiers, Ltd., 66, Victoria-st., S.W.1; W. E. Chivers & Sons, Ltd., Devizes, Wilts; electrical work, Rashleigh, Phipps & Co., Ltd., 2, Hanover-sq., London; Pemberton & Sturgess (Gt. Brit.), Ltd., 1, Granville-pde., College-rd., Harrow.

¶**London (War Dept.).** — Contracts placed by War Department for week ended November 15:—

Shetland: Hutting (erection), T. Smith & Son, Scalloway, Shetland.

Co. Durham: Concrete work, E. Thompson, Newcastle 1.

Westmorland: Hutting (erection & concrete work), F. W. Chandler, St. Annes-on-Sea.

Lancs: Miscellaneous work, Fraser & Clayton, Seaforth, Liverpool; J. Lucas & Son, Ltd., Prescot, Lancs; Berry & Hallowell, Burscough, Lancs; C. Payne & Co., Ltd., Warrington; electrical work, Hartley & Bromhell, Ltd., Barrow-in-Furness.

Lincs: Miscellaneous work, T. Wilkinson & Co., Cleethorpes.

Ches: Miscellaneous work, Peak Construction Co., Ltd., Birkenhead.

Staffs: Miscellaneous work, Beddoes & O'Dare, Teen, Stoke-on-Trent; F. Fredley, Ltd., Hanley, Stoke-on-Trent; John McLean (Builders), Ltd., Coven, Wolverhampton; Brodderick Bros., Ltd., Sadler Gate, Derby.

Warwickshire and Staffs: Miscellaneous work, A. E. W. Phipps, Ltd., Hanover, Birmingham.

Northamptonshire: Miscellaneous work, R. H. Champion & Sons, Watford; hutting (erection), Chown's, Ltd., Northampton.

Oxfordshire: Miscellaneous work, H. J. & A. Wright, Great Missenden, Bucks.

London: Miscellaneous work, Hunter & Clarke, Ltd., London, S.W.11.

Wiltshire: Miscellaneous work, R. Butcher & Son, Warminster; Haynes & Son, Salisbury; B. Hillier & Sons, Marlborough; Bryant & Trowbridge, Ltd., Christchurch, Hants; hutting (erection), N. H. Bradley & Son, Swindon; Benson Bros., Ltd., Bristol.

Surrey: Hutting (erection), G. J. Arthur & Sons, Ltd., Dorking, Surrey.

Hampshire: Building work, Mears Bros. (Contractors), Ltd., London, S.E.26.

Sussex: Hutting (erection), McKellar & Westerman, Hove, Sussex.

Dorsetshire: Hutting (erection), F. Wyatt & Son, Lychett Minster, Dorset; concrete, road & miscellaneous work, Mears Bros. (Contractors), Ltd., Blandford & London.

Co. Down: Painting work, Holdsworth, Ltd., Belfast.

Manchester.—Adaptation as war-time nursery of premises at Withington, for Public Health Committee. G. Noel Hill (F.), City Architect: *Normanton's, Ltd., 167, Plymouth-gr., Chorlton-on-Medlock, Manchester 13.

Manchester.—Additions to works. Harry S. Fairhurst & Son (FF.), 55, Brown-st., architects: *W. Thorpe & Son, Ltd., Chester-rd., Cornbrook, Manchester.

Manchester. — Works extensions, McCutcheon & Walsingham (L.), architects, 1180A, Chester-rd., Stretford, Manchester: *Birtle & Penny, Croft-st., Manchester 11.

Manchester.—Welfare department to factory. Harry S. Fairhurst & Son (FF.), 55, Brown-st., architects: *J. Gerrard & Sons, Ltd., Pendlebury-rd., Swinton, Manchester.

Northenden. — Additions to works. Harry S. Fairhurst & Son (FF.), 55, Brown-st., Manchester 2, architects: *William Thorpe & Son, Ltd., Chester-rd., Cornbrook, Manchester.

Southgate.—Repairs to properties for B.C. *J. Stewart & Sons, Ltd., £286.

Stockton-on-Tees. — Additions: *L. Brown & Sons, Boathouse-la., Stockton-on-Tees.

Wandsworth.—Works for B.C.:— Erection of nursery huts and shelter at Sherwood-ave., Streatham Vale. *W. H. Lorden & Son, Ltd.,£2,258. (In lieu of previous tender withdrawn); erection of specially equipped nursery huts and shelter at Cresset-st., Clapham. *W. H. Lorden & Son, Ltd., £2,177.

Wenlock.—Construction of booster station, two lengths of spun-iron water main 3 in. dia., and incidental works, for T.C. A. H. S. Waters, M.Inst.C.E., 25, Temple-row, Birmingham 2; †T. W. Edwards & Sons, Stourbridge, £2,119.

Wolverhampton. — Rebuilding warehouse: *A. M. Griffiths & Son, Ltd., Thomas-st., Wolverhampton.

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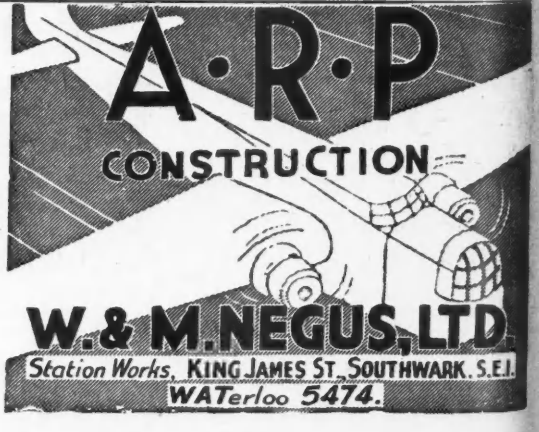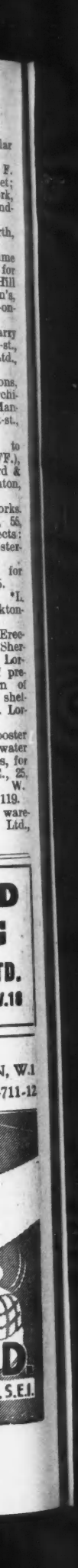
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